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A DRUG
SCREENING
EXPERT

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TARGETMOL KITS

TargetMol
A DRUG SCREENING EXPERT

Target Molecule Corp

— Drug Screening Expert (Inhibitors,Libraries,Natural Compounds)

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Protease Inhibitor Cocktails
Phosphatase Inhibitor Cocktails
Cell Counting Kit-8 (CCK-8)





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PROTEASE INHIBITOR COCKTAIL

Protease Inhibitor Cocktail

Catalog No.C0001

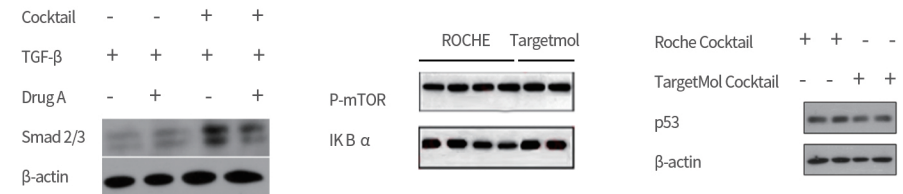
TargetMol provides a wide array of customizable Protease Inhibitor Cocktails, each with varying mechanisms of actions, aimed at protecting your protein samples. They work by helping proteins avoid rapid degradation caused by endogenous proteases during the cell lysis and protein purification processes. The Protease Inhibitor Cocktail I contains six protease inhibitors with broad specificity, aimed at facilitating the inhibition of aspartyl, cysteine, serine, as well as several aminopeptidases.

Pack Size

| | |
|----------------|-----------------|
| 1ml * 1 tube | 1ml * 10 tubes |
| 1ml * 50 tubes | 1ml * 100 tubes |

* For more specifications and discounts, please contact us.

Customer Product Validation



Composition

| Ingredient | CAS | MW | Concentration (100x) | Target | Type |
|------------|------------|---------|----------------------|-----------------------|--------------|
| AEBSF.HCl | 30827-99-7 | 239.69 | 104 mM | serine proteases | Irreversible |
| Aprotinin | 9087-70-1 | 6511.44 | 80 μM | serine proteases | Reversible |
| Bestatin | 58970-76-6 | 308.37 | 5 mM | aminopeptidase B; LAP | Reversibl |

Composition

| Ingredient | CAS | MW | Concentration (100x) | Target | Type |
|-------------|------------|--------|----------------------|--|--------------|
| E-64 | 66701-25-5 | 357.41 | 1.5 mM | cysteine proteases | Irreversible |
| Leupeptin | 55123-66-5 | 475.6 | 2 mM | cysteine proteases serine proteases | Reversible |
| Pepstatin A | 26305-03-3 | 685.89 | 1.5 mM | aspartic proteinase | Reversible |

Package

| Attribute | Value |
|-------------|--------------------------|
| Form | Liquid |
| Formulation | In 1 ml DMSO |
| Storage | -20 °C , Avoid free/thaw |
| Freeze | Ok to freeze |
| Toxicity | Irritant |

Handling Instruction

- Compatible with Western Blot analysis, Co-IP, pull-down, IF, IHC, kinase assay and etc.
- Thaw in Room Temperature. Please centrifuge it at low speed before opening the cover, so as to throw the liquid adhered to the wall of the tube to the bottom.
- Add concentrated cocktail at 1:100 (v/v) dilution to solution samples (such as cell lysates or tissue extracts) before assaying.
- Briefly vortex cocktails to help facilitate the dissolution.
- Extracts of up to 20 g wet weight.

Features

- Definite composition and concentration.
- Highly efficient inhibition of various proteases, full protection of protein from degradation.
- High cost performance.

Notice

- Following initial thaw, aliquot and freeze (-20°C) to avoid thawing and refreezing repeatedly.
- Some DUB proteases (one example is ATAXIN-3) cannot be suppressed by traditional protease inhibitors, such as E-64, AEBSF, bestatin, leupeptin and Aprotinin.

(Reference: Neil D. Rawlings, Guy Salvesen et al. Handbook of Proteolytic Enzymes, Vol.1, 2012.)

PHOSPHATASE INHIBITOR COCKTAILS

Phosphatase Inhibitor Cocktail I (100× ddH₂O)

Catalog No.C0002

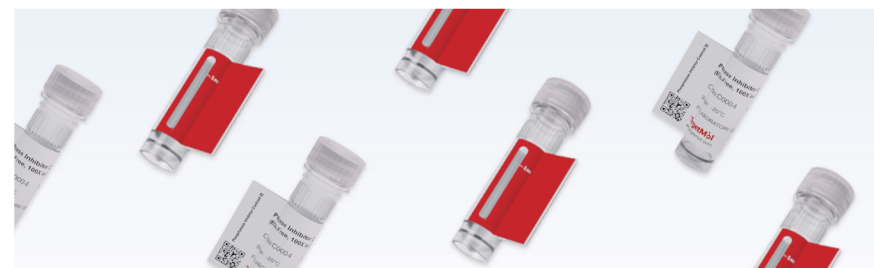
It is easy for the proteins to be degraded or dephosphorylated during in vitro extraction procedure, which could cause an inaccurate result of protein expression detection. Therefore, adding protease inhibitors or phosphatase inhibitors into the extracts would be an effective method to prevent degradation and dephosphorylation of protein.

The phosphatase inhibitor mixture can effectively inhibit the dephosphorylation of common phosphatases on proteins and maintain the original phosphorylation state of proteins.

Pack Size

| | |
|----------------|-----------------|
| 1ml * 1 tube | 1ml * 10 tubes |
| 1ml * 50 tubes | 1ml * 100 tubes |

* For more specifications and discounts, please contact us.



Composition

| Ingredient | CAS | MW | Concentration (100x) | Target | Type |
|----------------------|------------|--------|----------------------|--|--------------|
| Sodium Fluoride | 7681-49-4 | 41.99 | 100 mM | Acid Phosphatase | Reversible |
| Sodium Orthovanadate | 13721-39-6 | 183.91 | 100 mM | Alkaline phosphatase PTPs, ATPases | Reversible |
| Sodium Molybdate | 7631-95-0 | 205.92 | 115 mM | Acid and phosphoprotein Phosphatase | Irreversible |
| Sodium Tartrate | 868-18-8 | 194.05 | 400mM | Acid Phosphatase | Reversible |
| Imidazole | 288-32-4 | 68.08 | 200 mM | Alkaline phosphatase | Reversible |

Package

| Attribute | Value |
|-------------|--------------------------|
| Form | Liquid |
| Formulation | In 1 ml DMSO |
| Storage | -20 °C , Avoid free/thaw |
| Freeze | Ok to freeze |
| Toxicity | Irritant |

Handling Instruction

- Compatible with Western Blot analysis, IP, Co-IP, pull-down, IF, IHC, kinase assay and etc.
- Add concentrated cocktail at 1:100 (v/v) dilution to samples solution (such as cell lysates or tissue extracts) before assaying.
- Briefly vortex cocktails to help facilitate the dissolution.

Features

- Definite composition and concentration.
- Highly efficient inhibition of various phosphatase, full protection of protein from dephosphorylation.
- High cost performance.

Notice

- Definite composition and concentration.
- Highly efficient inhibition of various phosphatase, full protection of protein from dephosphorylation.
- High cost performance.
- Following initial thaw, aliquot and freeze (-20°C) to avoid thawing and refreezing repeatedly.
- If Cocktail I and Cocktail II are used together, do not mix tube I with tube II beforehand, as there may be precipitation. To avoid this, please add them step by step during experiment.

Phosphatase Inhibitor Cocktail II (100× DMSO)

Catalog No. C0003

It is easy for the proteins to be degraded or dephosphorylated during in vitro extraction procedure, which could cause an inaccurate result of protein expression detection. Therefore, adding protease inhibitors or phosphatase inhibitors into the extracts would be an effective method to prevent degradation and dephosphorylation of protein.

The phosphatase inhibitor mixture can effectively inhibit the dephosphorylation of common phosphatases on proteins and maintain the original phosphorylation state of proteins.

Pack Size

| | |
|----------------|-----------------|
| 1ml * 1 tube | 1ml * 10 tubes |
| 1ml * 50 tubes | 1ml * 100 tubes |

* For more specifications and discounts, please contact us.

Composition

| Ingredient | CAS | MW | Concentration (100x) | Target | Type |
|---------------------------------|-------------|--------|----------------------|-----------------------|--------------|
| (-)-p-Bromotetra misole oxalate | 62284-79-1 | 373.22 | 2.5 mM | Alkaline phosphatases | Irreversible |
| Cantharidin | 56-25-7 | 196.2 | 500 μM | Ser/Thr phosphatases | Reversible |
| Microcystin LR | 101043-37-2 | 995.17 | 500 nM | Acid and PP1 and PP2A | Reversible |

Package

| Attribute | Value |
|-------------|--------------------------|
| Form | Liquid |
| Formulation | In 1 mL DMSO |
| Storage | -20 °C , Avoid free/thaw |
| Freeze | Ok to freeze |
| Toxicity | Irritant |

Handling Instruction

- Compatible with Western Blot analysis, IP, Co-IP, pull-down, IF, IHC, kinase assay and etc.
- Add concentrated cocktail at 1:100 (v/v) dilution to samples solution (such as cell lysates or tissue extracts) before assaying.
- Briefly vortex cocktails to help facilitate the dissolution.

Features

- Definite composition and concentration.
- Highly efficient inhibition of various phosphatase, full protection of protein from dephosphorylation.
- High cost performance.

Notice

- Following initial thaw, aliquot and freeze (-20°C) to avoid thawing and refreezing repeatedly.
- If Cocktail I and Cocktail II are used together, do not mix tube I with tube II beforehand, as there may be precipitation. To avoid this, please add them step by step during experiment.



Phosphatase Inhibitor Cocktail III (2 Tubes, 100x)

Catalog No. C0004

It is easy for the proteins to be degraded or dephosphorylated during in vitro extraction procedure, which could cause an inaccurate result of protein expression detection. Therefore, adding protease inhibitors or phosphatase inhibitors into the extracts would be an effective method to prevent degradation and dephosphorylation of protein.

The phosphatase inhibitor mixture can effectively inhibit the dephosphorylation of common phosphatases on proteins and maintain the original phosphorylation state of proteins.

Pack Size

| | |
|-------------------------------|--------------------------------|
| (1 mL I + 1 mL II) * 1 tube | (1 mL I + 1 mL II) * 10 tubes |
| (1 mL I + 1 mL II) * 50 tubes | (1 mL I + 1 mL II) * 100 tubes |

* For more specifications and discounts, please contact us.

Composition

| Tube No. | Ingredient | CAS | MW | Concentration (100x) | Target | Type |
|----------------------------|---------------------------------|-------------|--------|----------------------|-------------------------------------|--------------|
| I (ddH ₂ O) 1mL | Sodium Fluoride | 7681-49-4 | 41.99 | 100 mM | Acid Phosphatase | Reversible |
| | Sodium Orthovanadate | 13721-39-6 | 183.91 | 100 mM | Alkaline phosphatase, PTPs, ATPases | Reversible |
| | Sodium Molybdate | 7631-95-0 | 205.92 | 115 mM | Acid and phosphoprotein Phosphatase | Irreversible |
| | Sodium Tartrate | 868-18-8 | 194.05 | 400mM | Acid Phosphatase | Reversible |
| | Imidazole | 288-32-4 | 68.08 | 200 mM | Alkaline phosphatase | Reversible |
| II (DMSO) 1mL | (-)-p-Bromote tramisole oxalate | 62284-79-1 | 373.22 | 2.5 mM | Alkaline phosphatases | Irreversible |
| | Cantharidin | 56-25-7 | 196.2 | 500 μM | Ser/Thr phosphatases | Reversible |
| | Microcystin LR | 101043-37-2 | 995.17 | 500 nM | Acid and PP1 and PP2A | Reversible |

Package

| Attribute | Value |
|-------------|-----------------------------------|
| Form | Liquid |
| Formulation | Tube I In 1 ml ddH ₂ O |
| | Tube II In 1 ml DMSO |
| Storage | -20 °C , Avoid free/thaw |
| Freeze | Ok to freeze |
| Toxicity | Irritant |

Handling Instruction

- Compatible with Western Blot analysis, IP, Co-IP, pull-down, IF, IHC, kinase assay and etc.
- Add concentrated cocktail at 1:100 (v/v) dilution to samples solution (such as cell lysates or tissue extracts) before assaying.
- Briefly vortex cocktails to help facilitate the dissolution.
- Note to add tube I first, mix well, then add tube II, mix again.

Features

- Definite composition and concentration.
- Highly efficient inhibition of various phosphatase, full protection of protein from dephosphorylation.
- High cost performance.

Notice

- Following initial thaw, aliquot and freeze (-20°C) to avoid thawing and refreezing repeatedly.
- If Cocktail I and Cocktail II are used together, do not mix tube I with tube II beforehand, as there may be precipitation. To avoid this, please add them step by step during experiment.

Cell Counting Kit-8 (CCK-8)

Catalog No.C0005

Cell Counting Kit-8 (CCK-8) allows very convenient assays by utilizing the highly water-soluble tetrazolium salt WST-8 [2-(2-methoxy-4-nitrophenyl)-3-(4-nitrophenyl)-5-(2,4-disulfophenyl)-2H-tetrazolium, monosodium salt] produces a water-soluble formazan dye upon reduction in the presence of an electron carrier. Cell Counting Kit-8 is a one-bottle solution; no premixing of components is required. Cell Counting Kit-8, being nonradioactive, allows sensitive colorimetric assays for the determination of the number of viable cells in cell proliferation and cytotoxicity assays.

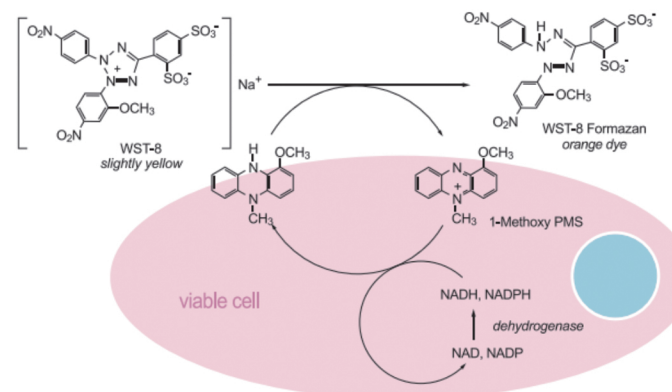
Pack Size

| | | |
|--------------------|------------------|----------------------|
| 1 mL (100 tests) | 5 mL (500 tests) | 10 mL (1000 tests) |
| 30 mL (3000 tests) | | 100 mL (10000 tests) |

* For more specifications and discounts, please contact us.

Handling Instruction

WST-8 is reduced by dehydrogenases in cells to give a yellowcolored product (formazan), which is soluble in the tissue culture medium. The amount of the formazan dye generated by the activity of dehydrogenases in cells is directly proportional to the number of living cells. The detection sensitivity of CCK-8 is higher than other tetrazolium salts such as MTT, XTT, MTS or WST-1.



Working mechanisms of Cell Counting Kit-8 (CCK-8).

Advantages

- More Sensitive than MTT, MTS, or WST-1
- No Toxicity to Cell
- Simpler Steps, No organic solvents required
- Stable One Bottle Solution, ready-to-use

| Properties | MTT | XTT | WST-1 | CCK8 |
|-----------------------------|---------------------|-------------------|-------------------|-------------------|
| Solubility of formazan | — | + | + | + |
| Forms | Power | 2-bottle solution | 1-bottle solution | 1-bottle solution |
| Preparation | Dissolve before use | Mix before use | Ready to use | Ready to use |
| Sensitivity | + | ++ | ++ | +++ |
| Detection Speed | + | ++ | ++ | +++ |
| Wavelength | 560-600nm | 420-480nm | 420-480nm | 430-490nm |
| Toxicity | + | — | — | — |
| Stability | + | — | + | + |
| 96-well plate compatibility | + | ++ | ++ | ++ |
| Convenience | + | ++ | ++ | +++ |

Experiment Procedure

- 100µL cell suspension was inoculated on 96-well plate and incubated in cell incubator (37 ° C, 5% CO₂).
- Take the cells out of the incubator, add 1/10 volume of Cell Counting Kit-8 (CCK-8) directly to cells in culture medium. Mix thoroughly to achieve a homogenous solution by lightly tapping the outside of the plate several times while avoiding bubbles. For 96-well plate, add 10 µl Cell Counting Kit-8 (CCK-8) per 100 µl culture medium.

Experiment Procedure

- Incubate in a cell culture incubator for 1 to 4 hours at 37 °C until the color turns orange. Over incubation will give false results.
- Place the 96-well plate on the shaking table for about 1min before the reading of the micrometer to ensure the uniform color of orifice plate.
- The 450nm light absorption value was read by an enzyme marker and cell activity was calculated.
- Optional: Add 10 µl of 1 % SDS (dissolve 0.1 g SDS with PBS buffer to prepare 10 ml solution) directly to 100 µl of cells to stop the reaction. Signals can be read within 3 days without affecting the absorbance values.

Applications

- Cell proliferation determinations
- Cell viability assays
- Cytokine assays
- Cytotoxicity assays

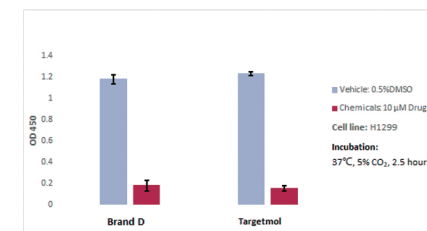
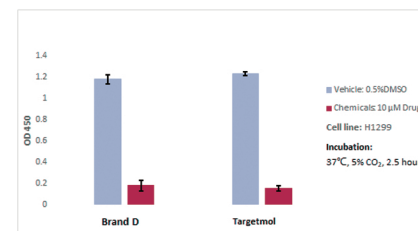
Storage

The Cell Counting Kit-8 (CCK-8) is stable for 6 months at room temperature, 2 years at 0-5 ° C with protection from light. For long term storage, store at -20°C and below.

Note

- Cell Counting Kit-8 (CCK-8) is ready-to-use solution. Mix the reagent to ensure a homogenous solution before use.
- Pay attention to the edge effect of 96-well plate. It is suggested to discard the surrounding plate hole and add the same amount of PBS.
- This product is for R&D use only, not for medical, household, or other uses.

Customer Product Validation



HOT SELLING INHIBITORS

| Cat.NO. | Hot Products | Cat.NO. | Hot Products |
|--------------|-------------------------------------|----------------------------|------------------------------------|
| SARS-CoV | | JAK-STAT | |
| T7766 | Remdesivir | T3043 | Ruxolitinib (INCB-18424) phosphate |
| T6833 | Favipiravir | T1995 | Fedratinib |
| T5539 | GS-441524 | T6308 | Stattic |
| Epigenetic | | MAPK | |
| T3015 | Olaparib | T6758 | Anisomycin |
| T3043 | Ruxolitinib (INCB-18424) phosphate | T2125 | Trametinib |
| T3043 | Ruxolitinib (INCB-18424) phosphate | T1764 | SB203580 |
| Autophagy | | Tyrosine kinase | |
| T0194 | Chloroquine diphosphate | T3031 | ALK5 Inhibitor IV |
| T1662 | 5-Aminolevulinic acid hydrochloride | T1726 | SB 431542 |
| T1879 | 3-Methyladenine | T1181 | Gefitinib |
| Ion channels | | Neurotransmitter receptors | |
| T2391 | Camostat mesilate | T1551 | Tegaserod maleate |
| T1602 | Valproic acid sodium salt | T0482 | Sertraline hydrochloride |
| T0451 | Minoxidil | T0455 | Clozapine |
| NF-κB | | DNA Damage/DNA Repair | |
| T1902 | BAY Y11-7082 | T1564 | Cisplatin |
| T7081 | CCCP | T1020 | Doxorubicin hydrochloride |
| T6165 | Bardoxolone Methyl | T2219 | Puromycin dihydrochloride |
| TGF-β/Smad | | Wnt/Hedgehog/Notch | |
| T2510 | Galunisertib | T1878 | XAV939 |
| T6337 | RepSox | T2651 | IWR-1-endo |
| T3636 | SIS3 | T1810 | Purmorphamine |

| Cat.NO. | Hot Products | Cat.NO. | Hot Products |
|-----------------------|--------------------------|----------------|-------------------------|
| Angiogenesis | | PI3K/Akt/mTOR | |
| T0093L | Sorafenib | T1859 | AZD8055 |
| T1448 | Dasatinib | T0740 | Metformin hydrochloride |
| T2485 | Baricitinib | T2008 | LY294002 |
| Cell Cycle/Checkpoint | | HIF | |
| T3015 | Olaparib | T6961 | PX-478 2HCl |
| T2241 | Alisertib | T1939 | DMOG |
| T3111 | LY2835219 | T3404 | Cucurbitacin B |
| GPCR/G Protein | | Ubiquitination | |
| T1782 | Canagliflozin | T6332 | Pevonedistat |
| T4022 | QS 11 | T4338 | USP7/USP47 inhibitor |
| T2539 | Fingolimod hydrochloride | T1937 | Spautin-1 |
| Iron Death | | Apoptosis | |
| T1765 | Erastin | T6013 | Z-VAD(OMe)-FMK |
| T6500 | Ferrostatin-1 | T0875 | Acetylcysteine |
| T2376 | Liproxstatin-1 | T2101 | Navitoclax |
| Proteases/Proteasome | | Metabolism | |
| T2154 | MG132 | T2662 | Alda-1 |
| T1795 | Carfilzomib | T0054 | Disulfiram |
| T1525 | Ritonavir | T1713 | IBMX |

More targets and inhibitors, please search at www.targetmol.com

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