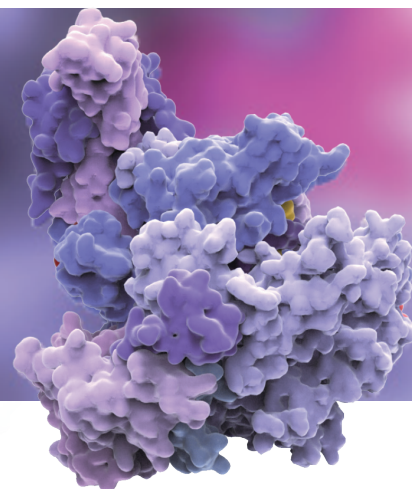


# New Products

November 2021

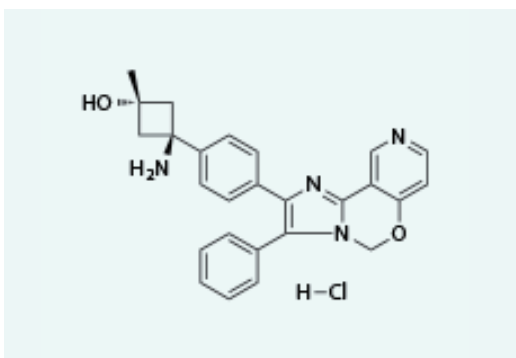


MedChemExpress (MCE) offers a wide range of high quality research chemicals and biochemicals including novel bioactive compounds, dye reagents, peptides and natural compounds for laboratory and scientific use.

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## TAS-117 hydrochloride

### Research Area: Akt Inhibitor/Multiple Myeloma



- Potent, selective, orally active allosteric **Akt** inhibitor (IC<sub>50</sub>s of 4.8, 1.6, and 44 nM for Akt1, 2, and 3, respectively).
- Triggers anti-myeloma activities and enhances fatal endoplasmic reticulum (ER) stress induced by proteasome inhibition.
- Induces **apoptosis** and **autophagy**.

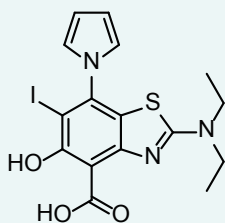
**Solubility:** DMSO : 62.5 mg/mL (135.59 mM; ultrasonic and warming and heat to 60°C)

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CAS No.: 2230044-57-0

### **MB710**

**Research Area: p53 Mutation Y220C Stabilizer/Gastric Cancer**



- An aminobenzothiazole derivative and a potent oncogenic **p53 mutation Y220C** stabilizer.
- Binds tightly to the Y220C pocket and stabilizes p53-Y220C.
- Shows anticancer activity in p53-Y220C cell lines.

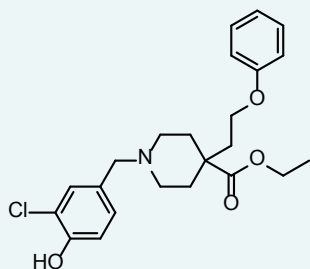
**Solubility:** DMSO : 25 mg/mL (54.67 mM; Need ultrasonic)

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CAS No.: 1069858-99-6

### **ML359**

**Research Area: Protein Disulfide Isomerase Inhibitor/Arterial Thrombosis-Related Diseases**



- Specific inhibitor of **protein disulfide isomerase (PDI)** with an  $IC_{50}$  of 250 nM.
- Inhibits thrombus formation in a mouse laser injury model.

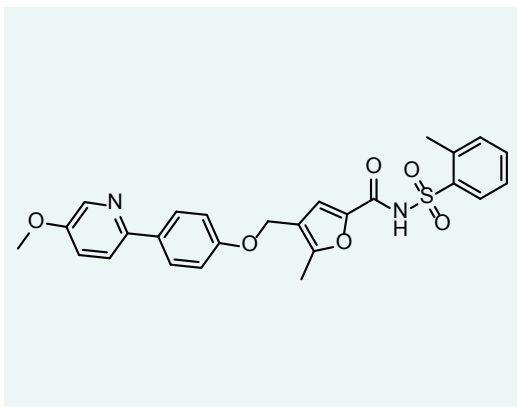
**Solubility:** DMSO : 100 mg/mL (239.27 mM; Need ultrasonic)

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CAS No.: 736183-35-0

### BGC-20-1531 free base

#### Research Area: Prostanoid EP<sub>4</sub> Receptor Antagonist/Migraine Headache



- Potent and selective **prostanoid EP<sub>4</sub> receptor** antagonist, exhibits high affinity at recombinant human EP<sub>4</sub> receptors expressed in cell lines (pK<sub>B</sub>=7.6).
- Competitively antagonizes PGE<sub>2</sub>-induced vasodilatation of human middle cerebral (pK<sub>B</sub>=7.8) and meningeal (pK<sub>B</sub>=7.6) arteries.

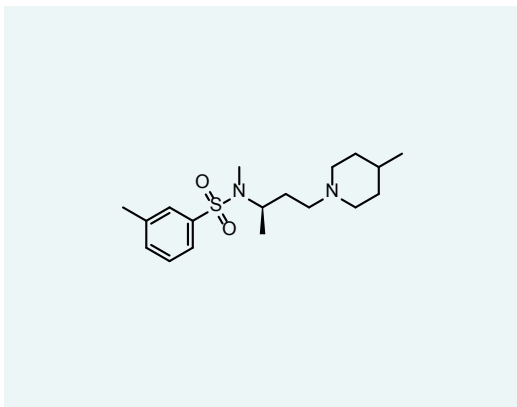
**Solubility:** DMSO : 250 mg/mL (507.57 mM; Need ultrasonic)

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CAS No.: 195199-95-2

### SB 258719

#### Research Area: 5-HT<sub>7</sub> Receptor Antagonist/Cancer and Neurological Disease



- Potent and selective **5-HT<sub>7</sub> receptor** antagonist with high affinity (pK<sub>i</sub>=7.5).
- Antagonizes surmountably 5-CT-stimulated adenylyl cyclase activity and reduces proliferation of HuH-7 and HepG2 cells, and also down regulates β-catenin.

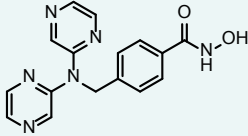
**Solubility:** DMSO : 250 mg/mL (738.53 mM; Need ultrasonic)

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CAS No.: 1636894-46-6

## KA2507

### Research Area: HDAC6 Inhibitor/Melanoma and Colorectal Cancer



- Potent and selective **HDAC6** inhibitor, with an  $IC_{50}$  of 2.5 nM.
- Shows antitumor efficacy and immune modulatory effects in preclinical models.

**Solubility:** DMSO : 66.67 mg/mL (206.84 mM; Need ultrasonic)

## SYBR Green qPCR Master Mix (Universal)

MCE SYBR Green qPCR Master Mix (Universal) is compatible with all qPCR instruments. 2× ready-to-use formulations which consist of antibody-mediated hot start polymerase,  $MgCl_2$ , dNTPs and a proprietary reaction buffer, produce optimal results in qPCR experiments.

### Comparison of chemical and antibody hot-start technologies

Hot-start technology	Introduction	Features
Chemical-mediated	Polymerases are covalently linked with chemical groups to block enzyme activity at room temperature. As temperature rises, chemical bonds break and enzyme activity is restored.	Long activation time; Full activation of the enzyme is often not possible; Free of animal-origin components.
Antibody-mediated	Polymerases are bound by antibodies at their active sites to block enzyme activity at room temperature. As temperature rises, antibodies get denatured and enzyme activity is restored.	Short activation time; Full enzyme activity is restored after activation; Antibodies may be of animal origin and may cause contamination of the PCR sample.

## Anti-infection Related Libraries

COVID-19 continues to spread globally and imposes a heavy burden on society. Infections caused by pathogens such as viruses, bacteria, fungi, and parasites pose a serious threat to people's health. Furthermore, resistance to antimicrobial agents has become a major source of morbidity and mortality worldwide. So it is urgent to develop novel and effective anti-infection drugs.

**MCE** provides a unique collection of **1800+ anti-infection compounds** with confirmed anti-bacterial, anti-viral, anti-fungal, and anti-parasite activities that can be used for anti-infection drug screening and mechanism research.

Catalog No	Anti-infection libraries	Number of compounds
HY-L002	Anti-Infection Compound Library	1800+
HY-L027	Antiviral Compound Library	600+
HY-L049	Antibacterial Compound Library	800+
HY-L067	Antibiotics Library	500+
HY-L048	Antifungal Compound Library	200+
HY-L082	Antiparasitic Compound Library	300+
HY-L073	Anti-Hepatitis C Virus Compound Library	200+
HY-L052	Anti-COVID-19 Compound Library	1500+

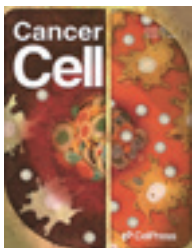
## Recent Publications Citing Use of MCE Products



**Science.** 2021 Oct;  
374(6563):eabf3067.



**Immunity.** 2021 Oct 12;  
54(10):2354-2371.e8.

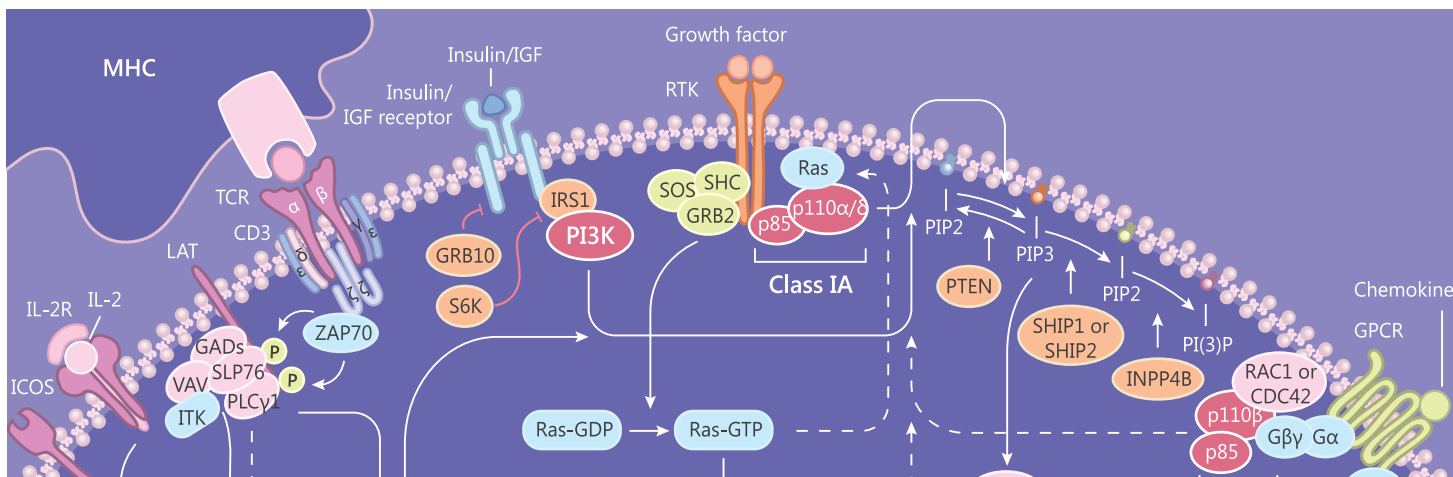


**Cancer Cell.** 2021 Oct 11;  
39(10):1361-1374.e9.



**Cell Metab.** 2021 Oct 5;  
33(10):2040-2058.e10.

## Cell Signaling Pathways



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