

## Kifunensine, Mannosidase I inhibitor

Catalog	Unit
TBI2860 - 1MG	1 mg
TBI2860 - 5MG	5 mg

## **Product Details**

Formal Name: (5R,6R,7S,8R,8aS)-Hexahydro-6,7,8-trihydroxy-5-(hydroxymethyl)-imidazo[1,2-a]pyridine-2,3-dione

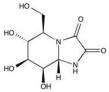
Alternate Names: FR-900494 Molecular Formula: C<sub>8</sub>H<sub>12</sub>N<sub>2</sub>O<sub>6</sub> Formula Weight: 232.2 CAS Number: 109944-15-2

Purity: >98%

Formulation: Powder

**Solubility:** Soluble in DMSO (up to 35 mg/ml)

**Storage:**  $-20^{\circ}$ C **Stability:**  $\geq 2$  years.



## **Applications**

Mannosidase I inhibitor

## **Functions**

Historically isolated from Kitasatosporia kifunense. Kifunensine (CAS 109944-15-2) is an inhibitor of class I  $\alpha$ -mannosidases which inhibit glycoprotein processing. Inhibits human endoplasmic reticulum  $\alpha$ -1,2-mannosidase I and Golgi Class I mannosidases IA, IB and IC with  $K_i$  values of 130 and 23 nM respectively. Inhibition of endoplasmic reticulum a-mannosidase I activity rescues the human a-sarcoglycan R77C mutation suggesting a new pharmacological approach for limb girdle muscular dystrophy type 2D patients carrying mutations that impair a-sarcoglycan trafficking. Improves maturation of misfolded proteins.

#### **Application Procedures**

First dissolved in DMSO (up to 35 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 1 month.

## **Relative Products**

TBI1170	Mitomycin C
TBI1345	E64, Cysteine protease inhibitor
TBI1347	E64d, Cysteine protease inhibitor
TBI2064	Chromomycin A3
TBI2069	Cytochalasin B
TBI2794	5-EDU, DNA Click labeling probe
TBI2071	Cytochalasin D
TBI1286	Bestatin, Aminopeptidase inhibitor
TBI2140	Gemcitabline
TBI2058	Aphidicolin, DNA polymerase Inhibito

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