

# **Screening Libraries**

**Proteins** 

# **Product** Data Sheet

# **DUSP14 Protein, Human (His-MBP)**

Cat. No.: HY-P76307

Dual specificity protein phosphatase 14; MKP-L; MKP-6; DUSP14 Synonyms:

Species: Human E. coli Source:

O95147 (M1-H191) Accession:

Gene ID: 11072

Molecular Weight: Approximately 60 kDa.

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

# **DESCRIPTION**

# Background

The DUSP14 Protein assumes a crucial role in the inactivation of MAP kinases, exhibiting dephosphorylation activity towards ERK, JNK, and p38 MAP-kinases. Its negative regulatory function extends to TCR signaling, where DUSP14 dephosphorylates the MAP3K7 adapter TAB1, leading to its inactivation. This mechanism underscores DUSP14's role in modulating the TCR signaling pathway, revealing its involvement in regulating immune responses. The dephosphorylation activity of DUSP14 on key components of MAP kinase cascades highlights its capacity to finely tune cellular signaling, with potential implications for various physiological processes influenced by MAP kinase pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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