

# **Screening Libraries**

**Proteins** 





# **Product** Data Sheet

# PTPN12 Protein, Human (sf9, His-GST)

Cat. No.: HY-P76558

Synonyms: Tyrosine-protein phosphatase non-receptor type 12; PTP-PEST; PTPG1

Species:

Sf9 insect cells Source: Q05209 (M1-Q355) Accession:

Gene ID: 5782

Molecular Weight: Approximately 64 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 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 8.0. 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 <sub>2</sub> 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

PTPN12 Protein, the subject, functions as a versatile enzyme capable of dephosphorylating a range of proteins, thereby playing a crucial role in the regulation of various cellular signaling cascades, as documented in the literature. Among its substrates, PTPN12 selectively dephosphorylates cellular tyrosine kinases, including ERBB2 and PTK2B/PYK2, exerting regulatory control over signaling pathways involving these kinases. The specificity of PTPN12 is highlighted by its ability to dephosphorylate ERBB2 at specific tyrosine residues, such as 'Tyr-1112,' 'Tyr-1196,' and/or 'Tyr-1248.' The intricate dephosphorylation activity of PTPN12 underscores its significance in modulating key signaling events and fine-tuning cellular responses mediated by tyrosine kinase pathways.

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

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