

**Synonym**

SHP-2

**Source**

Human SHP-2, His Tag(SH2-H5248) is expressed from E. coli cells. It contains AA Thr 2 - Arg 593 (Accession # [Q06124-2](#)).

Predicted N-terminus: His

**Molecular Characterization**

Poly-his

**SHP-2(Thr 2 - Arg 593)**  
**Q06124-2**

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 69.7 kDa. The protein migrates as 65-66 kDa under reducing (R) condition (SDS-PAGE).

**Endotoxin**

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

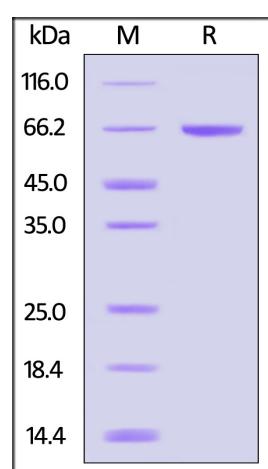
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human SHP-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity**

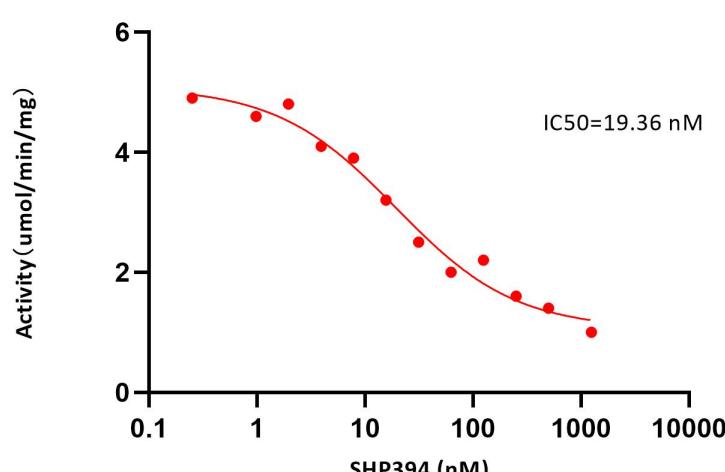
Measured by its ability to dephosphorylate a tyrosine residue in a peptide containing the EGFR Y992 phosphorylation site. The specific activity is >3 umol/min/mg, measured under the described conditions (QC tested).

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**Inhibition of Human SHP-2 Protein, His Tag**  
12.5ng of Human SHP-2 Protein, His Tag per well



Serial dilutions of SHP394 (an orally efficacious inhibitor of protein tyrosine phosphatase SHP2) were added into Human SHP-2 Protein, His Tag(SH2-H5248) enzymatic reactions. The half maximal inhibitory concentration (IC<sub>50</sub>) is 19.36 nM (Routinely tested).

## Background

SHP-2, a cytoplasmic SH2 domain containing protein tyrosine phosphatase, is involved in the signaling pathways of a variety of growth factors and cytokines. SHP-2 takes key role in transducing signal relay from the cell surface to the nucleus, and is a important intracellular regulator in mediating cell proliferation and differentiation.

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