

PRODUCT INFORMATION



HOP (human recombinant)

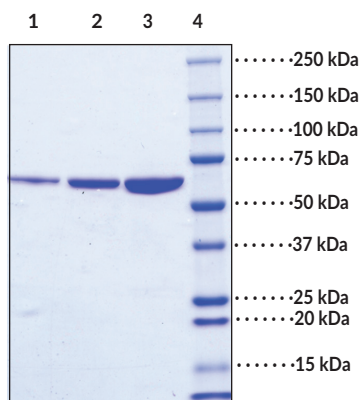
Item No. 22733

Overview and Properties

Synonyms: Hsp70/HSP90 Organizing Protein, Stress-Induced-Phosphoprotein 1
Source: N-terminally His-tagged human HOP protein (full length) purified from *E. coli*.
Uniprot No.: P31948
Molecular Weight: 65 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: *batch specific* (≥95% estimated by SDS-PAGE)
Supplied in: 50 mM HEPES, pH 8.0, 150 mM sodium chloride
Protein Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: HOP (1 µg)
Lane 2: HOP (2 µg)
Lane 3: HOP (4 µg)
Lane 4: MW Markers

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

HOP (Hsp70/Hsp90 Organizing Protein), also known as Stress-Induced Phosphoprotein 1 (STI1 or STIP1), acts as a co-chaperone to reversibly form a complex with Hsp70 and Hsp90 to assist in transfer of proteins between Hsp70 and Hsp90. The three tetratricopeptide repeat domains (TPR1, TPR2a, and TPR2b) act as binding regions, with TPR1 and TPR2B binding to Hsp70 and TPR2A binding to Hsp90.¹ Highly conserved in Eukaryotes, it is closely related to the yeast STI1. HOP is both a nuclear and cytoplasmic protein, capable of travel between both.² HOP has also been found to interact with several other proteins/complexes, including but not limited to: Hsc70, Hsp90 α , Hsp90 β , PACRG, METTL21B, FLCN, FNIP1, and FNIP2.³⁻⁷

References

1. Flom, G., Behal, R.H., Rosen, L., *et al.* Definition of the minimal fragments of Sti1 required for dimerization, interaction with Hsp70 and Hsp90 and in vivo functions. *Biochem J.* **404(1)**, 159-167 (2007).
2. Schmid, A.B., Lagleder, S., Gräwert, M.A., *et al.* The architecture of functional modules in the Hsp90 co-chaperone Sti1/Hop. *EMBO J.* **31(6)**, 1506-1517 (2012).
3. Harst, A., Lin, H., and Obermann, W.M. Aha1 competes with Hop, p50 and p23 for binding to the molecular chaperone Hsp90 and contributes to kinase and hormone receptor activation. *Biochem J.* **387(Pt. 3)**, 789-796 (2005).
4. Imai, Y., Soda, M., Murakami, T., *et al.* A product of the human gene adjacent to parkin is a component of Lewy bodies and suppresses Pael receptor-induced cell death. *J. Biol. Chem.* **278(51)**, 51901-51910 (2003).
5. Cloutier, P., Lavallée-Adam, M., Faubert, D., *et al.* A newly uncovered group of distantly related lysine methyltransferases preferentially interact with molecular chaperones to regulate their activity. *PLoS Genet.* **9(1)**, 1-13 (2013).
6. Silverstein, A.M., Galigniana, M.D., Chen, M.S., *et al.* Protein phosphatase 5 is a major component of glucocorticoid receptor.hsp90 complexes with properties of an FK506-binding immunophilin. *J. Biol. Chem.* **272(26)**, 16224-16230 (1997).
7. Woodford, M.R., Dunn, D.M., Blanden, A.R., *et al.* The FNIP co-chaperones decelerate the Hsp90 chaperone cycle and enhance drug binding. *Nat. Commun.* **7**, 12037 (2016).

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