

PRODUCT INFORMATION



Hsp10 (human, recombinant)

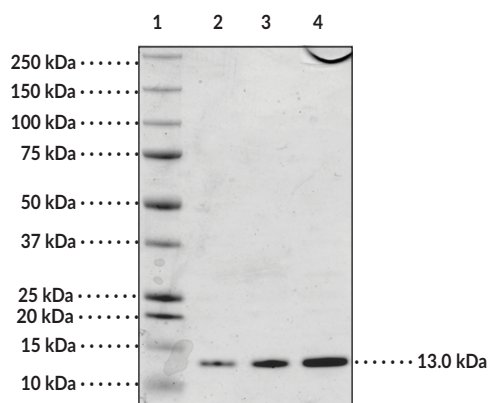
Item No. 23405

Overview and Properties

Synonyms:	Cpn10, Early-pregnancy Factor, Heat Shock Protein 10
Source:	Full length, N-terminally His-tagged human Hsp10 recombinant protein expressed in <i>E. coli</i>
Amino acids:	2-102 (full length)
Uniprot No.:	P61604
Molecular Weight:	13.0 kDa
Storage:	-80°C (as supplied); avoid freeze/thaw cycles by storing protein in aliquots
Stability:	≥1 year
Purity:	≥90% estimated by SDS-PAGE
Supplied in:	50 mM HEPES, pH 8.0, with 150 mM sodium chloride and 10% glycerol
Protein Concentration:	<i>batch specific</i> mg/ml

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

Image



Lane 1: MW Markers
Lane 2: Hsp10 (1 µg)
Lane 3: Hsp10 (2 µg)
Lane 4: Hsp10 (4 µg)

SDS-PAGE Analysis of Hsp10.

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
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Heat shock protein 10 (Hsp10) has a vital role in cellular function, where it assists in the folding and unfolding of mitochondrial proteins, assembly of multiprotein complexes, and is involved with cellular processes such as apoptosis and carcinogenesis.¹⁻³ Together with Hsp60, the Hsp10 protein forms a complex that is the mitochondrial equivalent of the bacterial chaperonin complex GroEL/GroES.⁴

References

1. Fan, W., Fan, S.-S., Feng, J., *et al.* Elevated expression of HSP10 protein inhibits apoptosis and associates with poor prognosis of astrocytoma. *PLoS One* **12(10)**, e0185563 (2017).
2. Samali, A., Cai, J., Zhivotovsky, B., *et al.* Presence of a pre-apoptotic complex of pro-caspase-3, Hsp60 and Hsp10 in the mitochondrial fraction of jurkat cells. *EMBO J.* **18(8)**, 2040-2048 (1999).
3. Capello, F., Di Stefano, A., David, S., *et al.* Hsp60 and Hsp10 down-regulation predicts bronchial epithelial carcinogenesis in smokers with chronic obstructive pulmonary disease. *Cancer* **107(10)**, 2417-2424 (2006).
4. Böttinger, L., Oeljeklaus, S., Gulard, B., *et al.* Mitochondrial heat shock protein (Hsp) 70 and Hsp10 cooperate in the formation of Hsp60 complexes. *J. Biol. Chem.* **290(18)**, 11611-11622 (2015).

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CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM