

Cpn10 Protein

Catalog# SPR-310A/B/C

Size: 50/100/200µg

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This product is for *in vitro* research use only and is not intended for use in humans or animals

StressMarq

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Product	Recombinant Human Cpn10 Protein
Source	Human DNA, (NM_002157.2) made in <i>E.coli</i>
Cited Applications	Western Blot Control
Purity	This protein is >90% pure as determined by SDS-PAGE analysis.
Format	In 20mM Tris, pH 7.5, 0.3M NaCl, 10% glycerol, 1 mM DTT
Concentration	0.9mg/mL
Storage and stability	-20°C; 1 year+; shipped on cold packs

Scientific Background

Chaperonin 10, otherwise known as Cpn10, (groES in *E.coli*) make up a family of small heat shock proteins with an approximate molecular mass of 10kDa (Hsp10s). Cpn10 acts as a co-chaperone and interacts with the Hsp60 family to promote proper folding of polypeptides. Cpn10 and Cpn60 both exhibit sevenfold axis of symmetry and function as a team in the protein folding and assembly process (1). Cpn10 has been located in human platelets, but is also present in human maternal serum (2, 3). It has been reported that human Cpn10 is identical with early pregnancy factor, which is involved in control over cell growth and development. This

identification suggest that Cpn10 may act like a hormone in stressful situations such as pregnancy (4).

Selected References

1. Velez-Granell C.S., *et al.* (1994) *J of Cell Science*. 107(3): 539-549.
2. Morton H., Hegh V., and Clunie G.J.A. (1974) *Nature (London)* 249: 459-460.
3. Cavanagh A.C., and Morton H. (1994) *Eur. J. Biochem.* 222: 551-560.
4. Minto M., *et al.* (1998) *Molecular Cell Research*. 1403 (2): 151-157.

Certificate of Analysis

This product has been certified >90% pure using SDSPAGE analysis.

Material Safety Data Sheet

Cpn10 Protein SPR-310

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The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
None		

Physical Data

This product consists of purified protein in Tris buffer in 10% glycerol shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Authorized: StressMarq Biosciences Inc.
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