



Recombinant Protein Technical Manual

Recombinant Human ORP150/HSP12A Protein (His Tag)

RPES1852

Product Data:

Product SKU: RPES1852

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001124463.1

Protein Information:

Molecular Mass: 35.2 kDa

AP Molecular Mass: 55-65 kDa

Tag: C-His

Bio-activity:

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Hypoxia up-regulated protein 1; 150 kDa oxygen-regulated protein; ORP50; 170 kDa glucose-regulated protein; GRP70; HYOU1; ORP150; Grp170; HSP12A

Immunogen Information:

Sequence: Met 695-Leu 994

Background:

Hypoxia up-regulated protein 1, also known as 150 kDa oxygen-regulated protein, 170 kDa glucose-regulated protein, ORP50, GRP70 and HYOU1, is a member of the heat shock protein 70 family. Seven members from four different heat shock protein (HSP) families were identified including HYOU1 (ORP150), HSPC1 (HSP86), HSPA5 (Bip), HSPD1 (HSP60), and several isoforms of the two testis-specific HSP70 chaperones HSPA2 and HSPA1L. HYOU1 is highly expressed in tissues that contain well-developed endoplasmic reticulum and synthesize large amounts of secretory proteins. It is highly expressed in liver and pancreas. HYOU1 is also expressed in macrophages within aortic atherosclerotic plaques, and in breast cancers. HYOU1 has a pivotal role in cytoprotective cellular mechanisms triggered by oxygen deprivation. It may play a role as a molecular chaperone and participate in protein folding. Suppression of HYOU1 is associated with accelerated apoptosis. It is suggested to have an important cytoprotective role in hypoxia-induced cellular perturbation. This protein has been shown to be up-regulated in tumors, especially in breast tumors, and thus it is associated with tumor invasiveness.