

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects endogenous human, mouse and rat HSP40 in Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 419401
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HSP40 Met1-Ile340 Accession # P25685
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Heat shock protein 40 kDa (HSP40) is the human homologue of the bacterial DnaJ heat shock protein. HSP40, also known as HSPF1 and DnaJ Homolog subfamily B member 1 (DNAJB1), is a 340 amino acid, 40 kDa member of the heat shock protein family. Heat shock proteins (HSPs) are a highly conserved family of stress response proteins. HSPs function primarily as molecular chaperones, facilitating the folding of other cellular proteins, preventing protein aggregation, or targeting improperly folded proteins to specific degradative pathways. Heat Shock Proteins are ubiquitously expressed in all organisms. They are induced in response to various types of environmental stresses like heat, cold, and oxygen deprivation. HSP40 is a stress inducible chaperone that co-localizes with HSP70 and can bind unfolded proteins and prevent protein denaturation and aggregation. The conserved amino terminal J domain can interact with HSP70 and stimulate its ATPase activity. Human HSP40 shares 95% amino acid identity with mouse and rat HSP40.

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