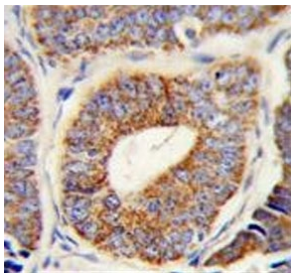
DNAJA1 Antibody / HSP40 HDJ2 Polyclonal Antibody (F54837)

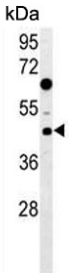
Catalog No.	Formulation	Size
F54837-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54837-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

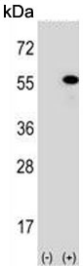
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	P31689
Localization	Cytoplasmic, nuclear
Applications	Flow cytometry: 1:10-1:50 (1x10e6 cells) Immunohistochemistry (FFPE): 1:50-1:100 Western blot: 1:500-1:1000
Limitations	This DNAJA1 Antibody / HSP40 HDJ2 Polyclonal Antibody is available for research use only.



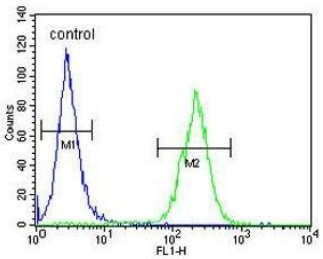
DNAJA1 Antibody by IHC in human prostate carcinoma. Immunohistochemistry of FFPE human prostate carcinoma tissue using DNAJA1 Antibody. Brown DAB immunoreactivity is visible in tumor cells, with predominantly cytoplasmic staining and variable intensity among cells. Hematoxylin counterstaining highlights blue nuclei and surrounding tissue architecture. The staining pattern demonstrates HDJ2 immunoreactivity in malignant epithelial cells. This HSP40 HDJ2 Polyclonal Antibody recognizes a molecular co-chaperone involved in HSP70-mediated protein folding and cellular stress responses.



DNAJA1 Antibody by WB in MCF7 cells. Western blot analysis of human MCF7 cell lysate using DNAJA1 Antibody. A distinct immunoreactive band appears at approximately 45 kDa, consistent with the predicted molecular weight of DNAJA1. The band is relatively sharp, with minimal additional background staining in the displayed molecular-weight range. This HSP40 HDJ2 Polyclonal Antibody detects the endogenous co-chaperone also known as HDJ2, which participates in HSP70-dependent protein folding and cellular proteostasis.



DNAJA1 Antibody by WB in DNAJA1-transfected 293 cells. Western blot analysis comparing non-transfected (-) and DNAJA1-transfected (+) human 293 cells using DNAJA1 Antibody. A prominent band near 55 kDa is detected in the transfected sample but not in the negative control. This band migrates approximately 10 kDa above the expected 45 kDa molecular weight of endogenous DNAJA1. The difference may reflect a tagged expression construct or altered migration, although the cause is not established. This HSP40 HDJ2 Polyclonal Antibody recognizes a transfection-associated protein under the tested conditions.



DNAJA1 Antibody by FACS in MCF7 cells. Flow cytometric analysis of human MCF7 cells using DNAJA1 Antibody. The antibody-stained population exhibits increased fluorescence relative to the negative control, indicating antibody-associated detection of DNAJA1. This HSP40 HDJ2 Polyclonal Antibody recognizes HDJ2, a molecular co-chaperone involved in cellular protein quality control. Because DNAJA1 is primarily intracellular, the fluorescence shift should not be interpreted as evidence of cell-surface expression without confirmation of the staining and permeabilization conditions.

Description

DNAJA1 Antibody recognizes DNAJA1, a molecular co-chaperone belonging to the HSP40/DnaJ family of heat shock proteins. Also known as HDJ2, HSDJ, DJA1, and HSPF4, DNAJA1 functions alongside HSP70 proteins to regulate protein folding, stabilization, and degradation. Molecular chaperones maintain protein homeostasis by preventing misfolding and aggregation, particularly during cellular stress. DNAJA1 helps recruit specific client proteins to HSP70 and supports their proper folding and processing.

The human DNAJA1 gene is located on chromosome 9 and encodes a protein of approximately 397 amino acids with a calculated molecular weight near 45 kDa. DNAJA1 contains an N-terminal J domain with a conserved HPD motif that stimulates HSP70 ATPase activity. Additional structural features include a glycine/phenylalanine-rich region, a zinc finger-like domain involved in substrate interactions, and a C-terminal region important for client binding and dimerization. These domains enable DNAJA1 to recognize unfolded proteins and coordinate their interaction with HSP70.

DNAJA1 participates in cellular responses to heat shock, oxidative stress, and other conditions that disrupt protein stability. Through its interactions with HSP70, it contributes to protein quality control by promoting refolding or facilitating the degradation of damaged proteins. The HSP40 HDJ2 Polyclonal Antibody is relevant to research investigating chaperone-mediated proteostasis, stress adaptation, and the maintenance of functional cellular proteins.

Beyond general protein folding, DNAJA1 influences the stability and activity of regulatory proteins involved in cell proliferation, survival, and signaling. Its interactions with HSP70 and other components of the proteostasis network have attracted interest in cancer biology, neurodegenerative disorders, and diseases characterized by abnormal protein aggregation. DNAJA1 has also been implicated in the regulation of certain oncogenic proteins, making it relevant to investigations of tumor cell survival and therapeutic resistance.

DNAJA1 shares structural similarities with other HSP40 family members, including DNAJA2 and DNAJA3, although

individual proteins differ in their client specificity and biological functions. Distinguishing these co-chaperones is important when studying protein quality control and cellular stress responses. NSJ Bioreagents offers antibodies targeting DNAJA1 for molecular chaperone research. A DNAJA1 Antibody provides a tool for examining HDJ2 expression and its involvement in HSP70-dependent protein folding, cellular stress responses, and protein homeostasis.

For an alternative antibody targeting the same HSP40 co-chaperone, see our HDJ2 Antibody.

Application Notes

The stated application concentrations are suggested starting points. Titration of the DNAJA1 Antibody / HSP40 HDJ2 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 294-323 from the human protein was used as the immunogen for the DNAJA1 antibody.

Storage

Aliquot the DNAJA1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HDJ2 antibody, HSP40 antibody, Heat Shock Protein 40 antibody, DnaJ Homolog Subfamily A Member 1 antibody, HSP40 Family Member A1 antibody, Human DnaJ Homolog 2 antibody

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