

DNAJA4 Antibody / DnaJ homolog subfamily A member 4 Antibody (FY13633)

Catalog No.	Formulation	Size
FY13633	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q8WW22
Applications	Western Blot : 0.5-1ug/ml ELISA : 0.1-0.5 ug/ml
Limitations	The DNAJA4 Antibody / DnaJ homolog subfamily A member 4 Antibody is available for research use only.

DNAJA4 Antibody by WB in human SiHa (lane 1), THP-1 (lane 2), A549 (lane 3), rat testis (lane 4), rat heart (lane 5), mouse testis (lane 6), and mouse heart (lane 7) lysates. Western blot analysis using DnaJ homolog subfamily A member 4 Antibody detects an immunoreactive band consistent with the expected molecular weight of approximately 45 kDa. Samples were prepared under reducing conditions, with 30 ug of total protein per lane, and resolved by 10% SDS-PAGE. The lanes contain human SiHa (lane 1), THP-1 (lane 2), A549 (lane 3), rat testis (lane 4), rat heart (lane 5), mouse testis (lane 6), and mouse heart (lane 7) lysates. Proteins were transferred to nitrocellulose, blocked with 5% nonfat milk, and incubated with primary antibody at 0.5 ug/mL overnight at 40C. HRP-conjugated secondary antibody and chemiluminescence were used for detection.

Description

DNAJA4 Antibody / DnaJ homolog subfamily A member 4 Antibody targets a member of the Hsp40/DnaJ co-chaperone family that works with Hsp70 proteins to maintain cellular protein quality control. DNAJA4 belongs to the class A DnaJ proteins, which contain a conserved J domain as well as additional regions involved in interactions with unfolded polypeptides. These features allow DnaJ co-chaperones to recognize proteins requiring assistance and stimulate the ATPase activity of Hsp70 chaperones during folding cycles.

Newly synthesized proteins and proteins exposed to stress may transiently display hydrophobic surfaces that increase their tendency to aggregate. Hsp70 systems limit this risk by binding such segments and releasing them in regulated cycles. DnaJ proteins help determine which substrates enter these cycles and influence how efficiently ATP hydrolysis converts Hsp70 into a stable substrate-binding state. The specific contribution of DNAJA4 depends on its cellular partners, substrate preferences, and regulation, which remain less fully defined than those of some other Hsp40 family members.

Protein quality control becomes particularly important during heat stress, oxidative damage, and other conditions that destabilize protein structure. Chaperone networks can promote refolding, facilitate transfer to additional folding machinery, or contribute to decisions about degradation when recovery is unsuccessful. Because different DnaJ proteins can overlap in function while retaining distinct substrate preferences, their individual activities cannot be inferred solely from family membership.

DNAJA4 has been investigated in contexts involving cellular stress responses and altered protein homeostasis. Its expression can reflect changes in the demand for chaperone activity, but expression alone does not identify the proteins being processed or establish a specific downstream outcome. Clarifying the functional relationships between DNAJA4 and particular Hsp70 partners remains central to understanding its role.

NSJ Bioreagents offers this DNAJA4 Antibody to support exploration of co-chaperone regulation and the maintenance of protein folding under changing cellular conditions. Identifying the substrates and regulatory interactions that distinguish DNAJA4 from related DnaJ proteins may reveal how cells distribute protein quality-control tasks across a diverse chaperone network.

Explore related research targets in our [Cell Biology Antibodies](#) collection.

Application Notes

The ideal working dilution for the DNAJA4 Antibody / DnaJ homolog subfamily A member 4 Antibody should be established by the investigator based on assay conditions.

Immunogen

The DNAJA4 Antibody was generated using e. coli-derived human DNAJA4 recombinant protein (amino acids K275-A390).

Storage

The DNAJA4 Antibody is stable for up to one month at 4°C after reconstitution. For longer-term storage, aliquot and store at -20°C for up to six months. Do not repeatedly freeze and thaw.

Alternate Names

DNAJA4 antibody, DnaJ homolog subfamily A member 4 antibody, DnaJ heat shock protein family (Hsp40) member A4 antibody, DNAJA4 rabbit polyclonal antibody

