



DnaJB8 (D-16): sc-102487

BACKGROUND

The DnaJ family, one of the largest of all the chaperone families, has evolved with diverse cellular localization and functions. The presence of the J domain defines a protein as a member of the DnaJ family. DnaJ heat-shock induced proteins are derived from the bacterium *Escherichia coli* and are under the control of the htpR regulatory protein. The DnaJ proteins play a critical role in the HSP 70 chaperone machine by interacting with HSP 70 to stimulate ATP hydrolysis. Members of this family contain cysteine-rich regions that are composed of zinc fingers that form a peptide-binding domain responsible for the chaperone function. They are important mediators of proteolysis and are involved in the regulation of protein degradation, exocytosis and endocytosis. DnaJB8 (DnaJ homolog subfamily B member 8) is a 232 amino acid protein that contains one J domain and is thought to act as a co-chaperone.

REFERENCES

- Saito, H., et al. 1978. Organization and expression of the DnaJ and DnaK genes of *Escherichia coli* K12. *Mol. Gen. Genet.* 164: 1-8.
- Georgopoulos, C.P., et al. 1980. Identification of the *E. coli* DnaJ gene product. *Mol. Gen. Genet.* 178: 583-588.
- Suh, W.C., et al. 1998. Interaction of the HSP 70 molecular chaperone, DnaK, with its co-chaperone DnaJ. *Proc. Natl. Acad. Sci. USA* 95: 15223-15228.
- Tomoyasu, T., et al. 1998. Levels of DnaK and DnaJ provide tight control of heat shock gene expression and protein repair in *Escherichia coli*. *Mol. Microbiol.* 30: 567-581.
- Stewart, G.R., et al. 2004. Analysis of the function of mycobacterial DnaJ proteins by overexpression and microarray profiling. *Tuberculosis* 84: 180-187.
- Shi, Y.Y., et al. 2005. The C-terminal (331-376) sequence of *Escherichia coli* DnaJ is essential for dimerization and chaperone activity: a small angle X-ray scattering study in solution. *J. Biol. Chem.* 280: 22761-22768.
- Robichon, C., et al. 2006. DnaJA4 is a SREBP-regulated chaperone involved in the cholesterol biosynthesis pathway. *Biochim. Biophys. Acta* 1761: 1107-1113.
- Genevaux, P., et al. 2007. The HSP 70 chaperone machines of *Escherichia coli*: a paradigm for the repartition of chaperone functions. *Mol. Microbiol.* 66: 840-857.
- Acebrón, S.P., et al. 2008. DnaJ recruits DnaK to protein aggregates. *J. Biol. Chem.* 283: 1381-1390.

CHROMOSOMAL LOCATION

Genetic locus: DNAJB8 (human) mapping to 3q21.3.

SOURCE

DnaJB8 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DnaJB8 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102487 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DnaJB8 (D-16) is recommended for detection of DnaJB8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other DnaJ family members.

Suitable for use as control antibody for DnaJB8 siRNA (h): sc-78480, DnaJB8 shRNA Plasmid (h): sc-78480-SH and DnaJB8 shRNA (h) Lentiviral Particles: sc-78480-V.

Molecular Weight of DnaJB8: 26 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.