

# HSP40 Antibody

Catalog # ASM10445

#### Specification

#### HSP40 Antibody - Product Information

Application Primary Accession Other Accession Host Clonality **Description** Rabbit Anti-P. Falciparum HSP40 Polyclonal

WB, ICC <u>Q8IHM7</u> <u>XP\_001348169.2</u> Rabbit Polyclonal

#### Target/Specificity

Detects  $\sim$  62kDa. Specific to P. Falciparum and does not cross-react to any protein from Human erythrocytes.

**Other Names** 

DNAJ1 Antibody, NDAJB1 Antibody, HDJ1 Antibody, HSP40 Antibody, HSPF1 Antibody, DnaJ homolog subfamily B member 1 Antibody, Dna J protein homolog 1 Antibody, Heat shock 40 kDa protein 1 Antibody, HSP40 Antibody, heat shock protein 40 Antibody, Human DnaJ protein 1 Antibody, hDj-1 Antibody

Immunogen C-terminal peptide of Pf11\_0513 conjugated to KLH

Purification Protein A Purified

Storage Storage Buffer PBS pH7.4, 50% glycerol, 0.09% sodium azide

Blue Ice or 4ºC

-20°C

**Certificate of Analysis** 0.9  $\mu$ g/ml of SPC-184 was sufficient for detection of Pf11\_0513 in 20  $\mu$ g of P. falciparum lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Cellular Localization Cytoplasm | Nucleus

Shipping Temperature

#### HSP40 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

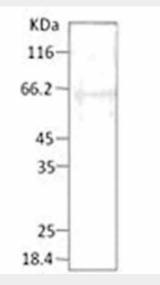
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry



## Immunofluorescence

- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### HSP40 Antibody - Images



Western blot analysis of Parasite lysates showing detection of HSP40 protein using Rabbit Anti-HSP40 Polyclonal Antibody (ASM10445). Primary Antibody: Rabbit Anti-HSP40 Polyclonal Antibody (ASM10445) at 1:2000.

#### HSP40 Antibody - Background

DnaJ/HSP40 proteins have been preserved throughout evolution and are important for protein translation, folding, unfolding, translocation, and degradation, primarily by stimulating the ATPase activity of chaperone proteins, HSP70s. Because the ATP hydrolysis is essential for the activity of HSP70s, DnaJ/HSP40 proteins actually determine the activity of HSP70s by stabilizing their interaction with substrate proteins. DnaJ/HSP40 proteins all contain the J domain through which they bind to HSP70s.

HSP40, also known as HDJ1 (1), is a basic mammalian 40kDa heat shock protein which is not only homologous to the bacterial heat shock protein (DnaJ), but also yeast DnaJ-related proteins such as SCJ1, Sec63/Npl1, YDJ1 and SIS1 (2-6). HSP 40 is inducible by stress including heat after which is moves from the cytoplasm to the nucleus and nucleoli; an intracellular pattern similar to HSC70/HSP70, the mammalian homologues of the bacterial heat shock protein, DnaK (3). PF11\_0513 belongs to the HSP40 family of chaperones. This protein has a Plasmodium export element (PEXEL). It is exported out of the parasite into the infected erythrocytic compartment.

## HSP40 Antibody - References

- 1. Ohtsuka K. (1993) Biochem. Biophys. Res. Commun. 197: 235-240.
- 2. Melville M.W., et al. (1997) PNAS USA. 94: 97-102.
- 3. Hattori H., Let al. (1992) Cell Structure and Function. 17: 77-86.
- 4. Ohtsuka K. Masuda A., Nakai A., and Nagata K. (1990) Biochem. Biophys. Res. Commun. 166: 642-647.
- 5. Bardwell J.C.A., et al. (1986) J. Biol. Chem. 261: 1782-1785.
- 6. Ohku M., Tamura F., Nishimura S., and Uchida H. (1986) J. Biol. Chem. 261: 1778-1781.