

Rabbit Anti-Hsp104 antibody

SL16560R

Product Name:	Hsp104
Chinese Name:	热休克蛋白104抗体
Alias:	L0948; Heat shock protein 104; HS104 YEAST; Hsp 104.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Saccharomyces cerevisiae
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-
	500 (Paraffin sections need antigen repair)
	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	102kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from YEAST Hsp104:701-800/908
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized
	antibody is stable at room temperature for at least one month and for greater than a year
	when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of
	antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	Hsp104 is a molecular chaperone required for stress tolerance and for maintenance of
	[psi(+)] prions in the budding yeast Saccharomyces cerevisiae (1,2). HSP104 is a
	hexameric protein with two AAA ATPase domains (N- and C-terminal nucleotide-
	binding domains NBD1 and NBD2, respectively) per monomer (3). NBD1 and NBD2
	have very different catalytic properties, but each shows positive cooperativity in
	hydrolysis (3,4). Point mutations in either of the two nucleotide-binding domains
	(NBD) of Hsp104 (NBD1 and NBD2) eliminate its thermotolerance function in vivo

(5). Hsp104 interacts with Hsp90 cochaperones in respiring yeast (1). The primary function of Hsp104 in prion propagation is to disassemble prion aggregates and generate the small prion seeds that initiate new rounds of prion propagation (possibly assisted by Hsp70-Ssa) (6).

Function:

Hsp104 is a molecular chaperone required for stress tolerance and for maintenance of [psi(+)] prions in the budding yeast Saccharomyces cerevisiae. Hsp104 is vital to protect yeast cells against high temperature and high concentration of ethanol. It is not required for normal growth.

Subunit:

Homohexamer, forming a ring with a central pore. The hexamer is stabilized by high protein concentrations and by ADP or ATP. Oligomerization influences ATP hydrolysis activity at NBD2. Interacts with YDJ1. Interacts (via C-terminal DDLD tetrapeptide) with CNS1, CPR7 and STI1 (via TPR repeats); under respiratory growth conditions.

Subcellular Location:

Cytoplasmic and Nuclear

Similarity:

Belongs to the ClpA/ClpB family.

SWISS:

P31539

Gene ID:

850633

Database links:

Entrez Gene: 850633 Saccharomyces cerevisiae

SwissProt: P31539 Saccharomyces cerevisiae

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.