

hsp70 elisa kit

Hsp70 High-Sensitivity StressXpress ELISA Kit

CATALOG #
AAA103770

REACTIVITY
Human, Monkey, Canine, Rat, Mouse

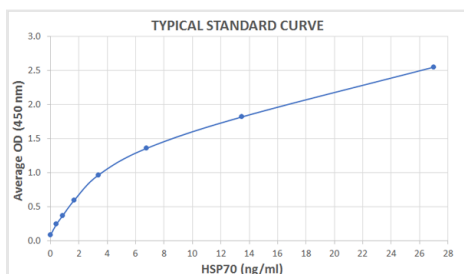
PRODUCT SYNONYMS

HSP70; Hsp70 High-Sensitivity StressXpress ELISA Kit; Hsp70.1; Hsp70.2; Hsp72; HSPA1; HSPA1A; HSPA1B; Hsp70 ELISA; hsp70 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human, Monkey, Canine, Rat, Mouse
Specificity	This assay is specific for Hsp70.
Sequence Length	674
Detection Range	0.55-35 ng/mL
Sensitivity	The calculated sensitivity of the Hsp70 ELISA is 0.02 ng/mL.
Preparation and Storage	4 degree C

IMAGES



Standard Curve (Sample)

Typical Standard Curve for the HSP70 ELISA Kit (High-Sensitivity) (Enzyme-Linked Immunosorbent Assay) StressXpress® - SKT-108. Assay Type: Sandwich ELISA. Detection Method: Colorimetric Assay. Assay Range: 0.55 - 35 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for hsp70 elisa kit

Background: Hsp70 genes encode abundant heat-inducible 70-kDa hsps (hsp70s). In most eukaryotes hsp70 genes exist as part of a multigene family. They are found in most cellular compartments of eukaryotes including nuclei, mitochondria, chloroplasts, the endoplasmic reticulum and the cytosol, as well as in bacteria. The genes show a high degree of conservation, having at least 50% identity (2). The N-terminal two thirds of hsp70s are more conserved than the C-terminal third. Hsp70 binds ATP with high affinity and possesses a weak ATPase activity which can be stimulated by binding to unfolded proteins and synthetic peptides (3). When hsc70 (constitutively expressed) present in mammalian cells was truncated, ATP binding activity was found to reside in an N-terminal fragment of 44kDa which lacked peptide binding capacity. Polypeptide binding ability therefore resided within the C-terminal half (4). The structure of this ATP binding domain displays multiple features of nucleotide binding proteins (5). All hsp70s, regardless of location, bind proteins, particularly unfolded ones. The molecular chaperones of the hsp70 family recognize and bind to nascent polypeptide chains as well as partially folded intermediates of proteins preventing their aggregation and misfolding. The binding of ATP triggers a critical conformational change leading to the release of the bound substrate protein (6). The universal ability of hsp70s to undergo cycles of binding to and release from hydrophobic stretches of partially unfolded proteins determines their role in a great variety of vital intracellular functions such as protein synthesis, protein folding and oligomerization and protein transport.

Product Categories/Family for hsp70 elisa kit	Heat Shock
References	1. Zho, J. (1998) Cell. 94: 471-480. 2. Boorstein W. R., Ziegelhoffer T. & Craig E. A. (1993) J. Mol. Evol. 38 (1) 1-17. 3. Rothman J. (1989) Cell 59: 591 -601. 4. DeLuca-Flaherty et al. (1990) Cell. 62: 875-887. 5. Bork P., Sander C. & Valencia A. (1992) Proc. Nutl Acad. Sci. USA 89: 7290-7294. 6. Fink A.L. (1999) Physiol. Rev. 79: 425-449. 7. Smith D.F., et al., (1993) Mol. Cell. Biol. 13(2):869-876. 8. Prapapanich V., et al., (1996) Mol. Cell. Biol. 16(11):6200-6207. 9. Fernandez-Funez et al., (2000) Nature. 408(6808):101-106.

NCBI AND UNIPROT INFORMATION

NCBI GI #	12248795
Molecular Weight	73,434 Da
NCBI Official Full Name	hsp70
UniProt Protein Name	Hsp70 protein
UniProt Gene Name	hsp70
UniProt Entry Name	Q9GRE8_TOXGO

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://www.aaabiotech.com/canine-human-monkey-mouse-rat-elisa-kits/hsp70/103770>