

Human HSC70 ELISA Kit

Hsc70 StressXpress ELISA kit

CATALOG #
AAA103772

REACTIVITY
Human

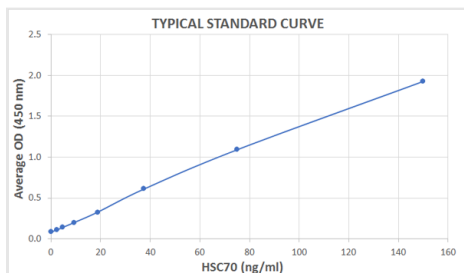
PRODUCT SYNONYMS

HSC70; Hsc70 StressXpress ELISA kit; Hsc54; Hsc71; Hsc73; Hsp71; Hsp73; HspA10; HspA8; LAP1; NIP71; Hsc70 ELISA; Enzyme-Linked Immunosorbent Assay; HSC70 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Samples	Cell lysates, Tissue extracts, Serum samples
Detection Range	150-2.34ng/mL
Sensitivity	1.54ng/mL
Incubation Time	30 minutes
Number of Samples	40 samples in duplicate
Preparation and Storage	4 degree C

IMAGES



Standard Curve (Sample)

Typical Standard Curve for the HSC70 ELISA kit (Enzyme-Linked Immunosorbent Assay) StressXpress® - SKT-106. Assay Type: Sandwich ELISA. Detection Method: Colorimetric Assay. Assay Range: 2.34 - 150 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for HSC70 elisa kit	Background Info: ELISA kit used to quantitate Hsc70 concentration in samples Scientific 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 44 kDa 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). When cells are subjected to metabolic stress (e.g., heat shock) a member of the hsp 70 family, hsp 70 (hsp72), is expressed; hsp 70 is highly related to hsc70 (>90% sequence identity). Constitutively expressed hsc70 rapidly forms a stable complex with the highly inducible hsp70 in cells following heat shock. The interaction of hsc70 with hsp 70 is regulated by ATP. These two heat shock proteins move together in the cell experiencing stress. Furthermore, research on hsc70 has implicates it with a role in facilitating the recovery of centrosomal structure and function after heat shock (6).
Product Categories/Family for HSC70 elisa kit	Chaperones; Heat Shock
References	1. Brown C.L., et al. (1993) J.Cell Biol., 120 (5): 1101-1112. 2. Boorstein W.R., Ziegelhoffer T., and 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., and Valencia A. (1992) Proc. Nutl Acad. Sci. USA 89: 7290-7294. 6. Brown C.L., et al. (1996) J. Biol. Chem. 271(2): 833-840.

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.