

Anti-Hsp110



TECHNICAL SPECIFICATIONS

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Rabbit Anti-Hsp110 Polyclonal Antibody Product #: SPA-1103

Immunogen

A 15 residue synthetic peptide LTETEDWLYEEGEDQ (referenced as peptide #388) based on the hamster Hsp110 (residues 670-684) (1). The peptide antigen was made using the "multiple antigenic peptide" procedure.

Specificity

This antibody detects an ~110 kDa protein, corresponding to the apparent molecular mass of Hsp110 on SDS-PAGE immunoblots, in human, mouse, rat, bovine, canine, fish (rainbow trout), guinea pig, hamster, monkey, pig, sheep and *Xenopus* origins. Please note that this antibody was raised against a conserved sequence and may react with other members of the Hsp110/SSE family.

Species Reactivity

human, mouse, rat, bovine, canine, fish (rainbow trout), guinea pig, hamster, monkey, pig, sheep, *Xenopus*

Applications

Certified*

Cited

Applications	Certified*	Cited
Western Blot (ECL)	1:1,000	
Western Blot (Colorimetric) (1,4,5)		Yes

*These working dilutions are provided as suggestions only. Further dilutions may be possible. Each user should determine the optimal conditions for their own particular experiment.

Positive Controls

Rat Brain Tissue Extract, Product#: LYT-RB100
Mouse Brain Tissue Extract, Product#: LYT-MB100
HeLa Cell Lysate (Heat Shocked), Product#: LYC-HL101

Scientific Background

Hsp 110 (110kD) belongs to a family of large stress proteins referred to as the Hsp110/SSE family (1). The proteins in this family are the most distantly known relatives of the well studied Hsp70 family. Members of this group are significantly larger in size and contain sequences not present in members of the Hsp70 family. The mammalian protein has recently been cloned (1) and found to share 30-33% amino acid identity with members of the Hsp70 family, most of which occurs in the conserved ATP-binding domain of these molecules. Presently, all identified members of the Hsp70-like sequences can be categorized as being members of either one of these two groups; i.e. the DnaK (i.e. Hsp70) family or the Hsp110/SSE family (1). While most stress protein families (20kD, 60kD, 70kD, and 90kD) have been studied extensively, the Hsp110 species has been virtually ignored. Reports to date indicate that Hsp110 is a normal constituent of mammalian cells, it is induced by heat shock and its induction strongly correlates with the expression of thermotolerance (2). Furthermore, Hsp110 has been shown to be associated with the nucleolus (3) and Western blot analysis of several murine tissues indicates that Hsp110 is constitutively expressed at varying levels in all mouse tissues and is highly expressed in brain (1).

References

1. Lee-Yoon, D., Easton, D., Murawski, M., Burd, R. and Subjeck, R.J. (1995) *J. Biol. Chem.* **270**: 15725-15733.
2. Subjeck, R.J., and Sciandra, J.J. (1982) in *Heat Shock: From Bacteria to Man* (Schlesinger, M., Ashburner, M., and Tissieres, A., eds) pp. 405-411, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.
3. Subjeck, R.J., Shyy, T., Shen, J.W., and Johnson, R.J. (1983) *J. Cell Biol.* **97**: 1389-1395.
4. Yagita, Y., Kitagawa, K., Ohtsuki, T., Tanaka, S., Hori, M., Matsumoto, M. (2001) *J. Cereb Blood Flow Metab* **21**(7): 811-819.
5. Tinhofer, I., Anether, G., Senfter, M., Pfaller, K., Bernhard, D., Hara, M., Greil, R. (2002) *FASEB J* **16**(10): 1295-1297.

Rev: 01/29/04

CERTIFICATE OF ANALYSIS

Anti-Hsp110

Product #: SPA-1103

Size: 200 μ L

Lot #: B401428

Format: Whole rabbit serum

Host: Rabbit

Antibody Type: Polyclonal

Certification: A 1:1,000 dilution of SPA-1103 was sufficient for detection of Hsp110 in 20 μ g of Rat Brain Tissue Extract (product# LYT-RB100) by ECL immunoblot analysis using Stressgen's Goat anti-Mouse IgG:HRP (product# SAB-300) as the secondary antibody.

Note: Stressgen makes every effort to provide a consistent source of high quality polyclonal antisera. However due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antisera is required throughout a study

STORAGE & SHIPPING: Store frozen product at or below -20°C. Thawed product may be stored for 2-4 weeks at 4°C. For optimal storage, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap. Shipped on gel packs.



FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES: This product is not to be used for diagnostic nor therapeutic purposes. By accepting this product, the user confirms that it will be used for research purposes only. Stressgen warrants that its products conform to the information published by Stressgen. Purchaser must determine the suitability of the product for their particular use. Please refer to the MSDS for product safety information.

MATERIAL SAFETY DATA SHEET

Section 1 - Product Identification and Use

Product Name: Anti-Hsp110 Rabbit Polyclonal **Product#** SPA-1103

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: Assay Designs
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Section 2 - Hazardous Ingredients

NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

Section 3 - Physical Data

This product consists of whole rabbit serum shipped on gel packs (dry ice overseas). The physical properties of this product have not been investigated thoroughly.

Section 4 - Fire and Explosion Hazard

NOT APPLICABLE

Section 5 - Reactivity Data

NOT APPLICABLE

Section 6 - Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Section 7 - Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

*****MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES*****

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 8 - First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Section 9 - Preparation

Prepared by: Assay Designs	Phone#: (734) 668-6113	Created: 01/29/04	Modified: 01/29/04
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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Stressgen shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.