

Anti-Tsp23

Catalog# SMC-194D

Size: 100µg

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This product is for *in vitro* research use only and is not intended for use in humans or animals

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Product	Mouse anti-TSP23 monoclonal antibody
Clone	TSP232A
Immunogen	Recombinant tsp23
Host and Subclass	Mouse IgG ₁ kappa
Applications	WB, others not tested.
Specificity	Tsp23, does not cross-react with p23. Detects ~19kDa.
Species cross-reactivity	Human
Format	Mouse immunoglobulin in PBS pH 7.4, in 0.09% azide in 50% glycerol. Protein G purified.
Concentration	1.0mg/mL
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

p23 is a highly conserved ubiquitous protein, known to have an important function as a cochaperone for the hsp90 chaperoning system (1). Studies have revealed that p23 is a small protein (18 to 25 kDa) with a simple structure (2, 3). p23 is a phosphor-protein, which is highly acidic and has an aspartic acid-rich c-terminal domain (1). Numerous studies have found p23 to be associated with other client proteins like Fes tyrosine kinase (4), the heme regulated kinase HRI (5), hsf1 transcription factor (4), aryl hydrocarbon receptor (4), telomerase (6), and Hepadnavirus reverse transcriptase (7). In spite of several years of study, the exact functional significance of p23 is still not clear (8). p23 is thought to be involved in the adenosine triphosphate-mediated hsp90 binding of client proteins (8). Since many hsp90 client proteins are involved in oncogenic survival signaling, a recent study has concluded p23 to be a promising target in leukemic

apoptosis (9). Hsp90 and its co-chaperone p23 are certainly among the emerging anti-tumor targets in oncology. Specifically TSP23 (transcript similar p23) displays 44% and 17% amino acid identity with p23 and Sba1p respectively (10).

Selected References

1. Johnson J.L., Beito T. G., Krco C.J., Toft D.O. (1994) *Mol Cell Biol* 14: 1956-63.
2. Weikl T., Abelmann K., Buchner J. (1999) *J Mol Biol* 293: 685-91.
3. Weaver A.J., Sullivan W.P., Felts S.J., Owen B.A., Toft D.O. (2000) *J Biol Chem* 275: 23045-52.
4. Nair S.C., et al. (1996) *Cell Stress Chaperones* 1: 237-50.
5. Xu Z., et al. (1997) *Eur J Biochem* 246, 461-70.
6. Holt S.E., et al. (1999) *Genes Dev* 13: 817-26.
7. Hu J., Toft D., Anselmo D., Wang X. (2002) *J Virol* 76: 269-79.
8. Felts, S.J., Toft D.O. (2003) *Cell Stress Chaperones*.8: 108-13.
9. Gausdal G., Gjertsen B.T., Fladmark K.E., Demol H., Vandekerckhove J. & Doskeland S.O. (2004) *Leukemia*
10. Freeman B.C., Felts S.J., Toft D.O., Yamamoto K.R. (2000) *Genes Dev.* 14(4): 433-434.

Certificate of Analysis

1 µg/mL of SMC-194 was sufficient for detection of tsp23 in 20µg of transiently transfected Hela cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-TSP23 (Monoclonal Antibody) SMC-194

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq 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.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Azide	26628-22-8	0.09

Physical Data

This product consists of mouse immunoglobulin in PBS containing 0.09% azide in 50% glycerol shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

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.

Preventative Measures

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

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- 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.

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.