

Anti-HDEL

Catalog# SMC-175 C/D

Size: 25/100µg

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

StressMarq

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Product	Mouse anti-HDEL antibody; monoclonal
Clone	2E7
Immunogen	Raised against a synthetic HDEL peptide corresponding to the C-terminus of yeast Bip
Host and Subclass	Mouse IgG _{2B}
Cited Applications	WB, IF
Specificity	Detects ~78kDa.
Species cross-reactivity	<i>Drosophila</i> , yeast, <i>Saccharomyce</i> , Plants (barnyard grass, beet, cotton, mung bean, sorghum and wheat)
Format	Protein G Purified In PBS pH 7.4, in 50% glycerol with 0.09% azide
Concentration and working dilution	1mg/mL; 1:1000-1:2000 (WB), 1:50-1:500 (IF)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

HSP 70 family comprises four highly conserved proteins, HSP 70, HSC 70, GRP 75 and GRP 78, which serve a

variety of roles. They act as molecular chaperones, facilitating the assembly of multi-protein complexes; participate in the translocation of polypeptides across cell membranes and to the nucleus; and aid in the proper folding of nascent polypeptide chains (1, 2). GRP 78 is localized in the endoplasmic reticulum (ER), where it receives imported secretory proteins and is involved in the folding and translocation of nascent peptide chains (2). Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually KDEL in animal cells, and HDEL in *S.cerevisiae* (3).

The 2E7 clone recognizes the C-terminal peptide HDEL, a common version of the endoplasmic reticulum retention signal found in yeast, plant, nematode and other ER proteins. 2E7 specifically stains HDEL proteins in barnyard grass, beet, cotton, mung bean, sorghum and wheat (4).

Selected References

1. Mayer M.P., and Bukau B. (2005) *Cell Mol Life Sci.* 62(6): 670-684.
2. Luo S., Mao C., Lee B., and Lee A.S. (2006) *Mol Cell Biol.* 26(15): 5688-5697.
3. Entrez Gene: HDEL, Gene ID: 10945
4. Napier R.M., *et al.* (1992) *J Cell Sci.* 102: 261-271.

Certificate of Analysis

1 µg/mL of SMC-175 was sufficient for detection of HDEL-containing proteins in 10µg of *S. cerevisiae* lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-HDEL Receptor (Monoclonal Antibody) SMC-175

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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.