

Anti-Sodium Iodide Symporter Catalog# SMC-391D

Size: 100µg

PO Box 55036, Cadboro Bay
3825 Cadboro Bay Road,
Victoria, BC, V8N 4G0, Canada

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

StressMarq Biosciences Inc.

Orders • sales@stressmarq.com
Tel: • +1 250 294 9065
Fax: • +1 250 294 9025
Email • info@stressmarq.com
Web • www.stressmarq.com

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|--------------------------|---|
| Product | Mouse anti-human sodium iodide symporter monoclonal antibody |
| Clone | FP5 |
| Immunogen | Mannose binding protein hNIS fusion (AA 468-643). |
| Host and Subclass | Mouse IgG _{1Kappa} |
| Applications | WB, ELISA, IHC, IF |
| Specificity | Mapped to AA 625-643 of hNIS. Apparent mol. wt of 97kD, non-glycosylated version at 68kD. Other minor bands associated with hNIS at 160 kDa, and degradation products at ~30 kDa, and ~15kDa. |
| Species cross-reactivity | Human, Mouse, Rat |
| Format | Mouse immunoglobulin in PBS pH 7.4, in 0.09% azide in 50% glycerol. Protein G purified. |
| Concentration | 1.0mg/mL; WB dilution 1:1000 |
| Storage and stability | -20°C; 1 year+; shipped on cold packs or ambient |

Selected References

1. Dai G., Levy O., Carrasco N. (1996) *Nature*. 379(6564): 458-460.
2. Snabik P.A., et al. (1997) *Endocrin*. 138(8): 3555-3558.
3. Dohan O., et al. (2007) *Proc Natl Acad Sci USA*. 104(51): 20250-20255.

Certificate of Analysis

1 µg/mL of SMC-391 was sufficient for detection of hNIS in 20 µg of transfected COS-7 cell membrane lysate by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Scientific Background

The sodium iodide symporter (NIS) is an ion pump that actively transports iodide across the basolateral membrane into thyroid epithelial cells (1, 2). This is important step in the process of iodide organification and the formation of triiodothyronine and thyroxine (3).

Material Safety Data Sheet

Anti-Sodium Iodide Symporter (NIS) (Monoclonal Antibody) SMC-391

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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.