

## TID-1 Ab-2 (Clone RS13)

### Mouse Monoclonal Antibody

Cat. #MS-1564-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-1564-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-1564-PCL (0.1ml) (Positive Control for Western Blot)

**Description:** *TID1* is a human homolog of the *Drosophila* tumor suppressor *lethal (2) tumorous imaginal discs, l(2)tid* and encodes two mitochondrial matrix localized splice variants of human Tid-1 designated hTid-1<sub>S</sub> and hTid-1<sub>L</sub>. These proteins are the conserved members of the DnaJ family of proteins which act as cochaperons for mitochondrial Hsp70. They contain a conserved tetrahedral J domain which binds to Hsp70 chaperones and activates their ATPase activity. Expression of hTid-1<sub>L</sub> increases apoptosis induced by DNA damaging agents as mitomycin-C and TNF-α. A J-domain mutant of hTid-1<sub>L</sub> can dominantly suppress apoptosis and in sharp contrast the J-domain mutant of hTid-1<sub>S</sub> increases apoptosis. Expression of hTid-1<sub>S</sub> and hTid-1<sub>L</sub> affects cytochrome c release from the mitochondria and caspase 3 activation, while activation of caspase 8 is unaffected. It is strongly suggested that these two splice variants exert their anti- and pro- apoptotic effects through discrete substrates and activities. Hence the relative abundance of these proteins or their substrates may allow the mitochondria to dampen or enhance the apoptotic signals.

**Comments:** Ab-2 reacts with both short and long variants of TID-1 and it co-precipitates mitochondrial Hsp70<sup>1</sup>.

**Mol. Wt. of Antigen:** 40 and 43kDa

**Species Reactivity:** Human, Mouse, and Rat. Others-not known

**Clone Designation:** RS13

**Ig Isotype / Light Chain:** IgG<sub>1</sub> / κ

**Immunogen:** Recombinant hTid-1 protein.

### Applications and Suggested Dilutions:

- Immunoprecipitation<sup>1</sup> (Use Protein G)  
(Ab 2µg/mg protein lysate)  
Co-precipitates mitochondrial Hsp70
- Western Blotting (Ab 1-2µg/ml for 2 hrs at RT)

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** HeLa or Jurkat cells

**Cellular Localization:** Mitochondria

**Supplied As:** 200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

**Storage and Stability:** Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

### Key References:

1. Syken J, et al. (1999), Proc. Natl. Acad. Sci. USA 96: 8499-8504.

### Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

### Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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