

Product Data Sheet

Inhibitors • Screening Libraries • Proteins

TRIM3 Protein, Human (GST)

| Cat. No.: | HY-P701504 |
|-------------------|---|
| Synonyms: | TRIM3; Tripartite motif-containing protein 3; Brain-expressed RING finger protein; RING finger protein 22; RING finger protein 97 |
| Species: | Human |
| Source: | E. coli |
| Accession: | O75382 (A2-Q744) |
| Gene ID: | 10612 |
| Molecular Weight: | |

| DDADEDTIES | |
|---------------------|--|
| PROPERTIES | |
| Appearance | Solution. |
| Formulation | Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconsititution | Please use rapid thawing with running water to thaw the protein. |
| Storage & Stability | Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles. |
| Shipping | Shipping with dry ice. |

DESCRIPTION

Background

TRIM3, an E3 ubiquitin ligase, assumes crucial roles in neuronal functions, orchestrating the regulation of neuronal plasticity, learning, and memory. Beyond its neuronal involvement, TRIM3 extends its influence to various biological processes, including innate immunity and cell cycle regulation. Within neurons, it becomes a key component of the cytoskeleton-associated recycling or transport complex, exerting its regulatory role by polyubiquitinating gamma-actin and thereby influencing neuronal plasticity. Additionally, TRIM3 ubiquitinates the postsynaptic scaffold GKAP, contributing to synaptic remodeling and modulation of dendritic spine morphology. It positively regulates the motility of the microtubule-dependent motor protein KIF21B. Moreover, TRIM3, through its RING-dependent E3 ligase activity, induces growth arrest and ubiquitinates CDKN1A. In the realm of innate immunity, it plays a positive regulatory role in TLR3-mediated signaling by mediating 'Lys-63'-linked polyubiquitination of TLR3, subsequently facilitating the recognition and sorting of polyubiquitinated TLR3 by the ESCRT complexes.

Caution: Product has not been fully validated for medical applications. For research use only.

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