

## **Anti-RIP3 (MAb Rippy-3)** (Anti-Human RIP3 Rippy-3 Monoclonal Antibody)

**CATALOG NO.:** XA-1023

**CLONE:** Rippy-3

**ISOTYPE:** Mouse IgG1

### **BACKGROUND:**

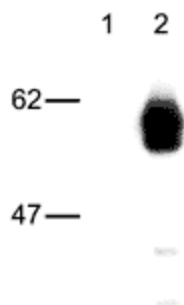
This product is also called anti-Receptor-interacting Serine/Threonine Protein Kinase 3. The immunogen is recombinant human RIP3. Certain serine/threonine protein kinases, such as ASK1, RIP, DAP, and ZIP kinases, are mediators of apoptosis. Receptor interacting proteins including RIP and RIP2/RICK mediate apoptosis induced by TNF-R1 and Fas, two prototype members in the death receptor family. A novel member in the RIP kinase family was recently identified and designated RIP3 [1-3]. RIP3 contains an N-terminal kinase domain but, unlike RIP or RIP2, lacks the C-terminal death or CARD domain. RIP3 binds to RIP and TNF-R1, mediates TNF-R1 induced apoptosis, and attenuates RIP and TNF-R1 induced NF- $\kappa$ B activation. Overexpression of RIP3 induces apoptosis and NF- $\kappa$ B activation. The messenger RNA of RIP3 is expressed in a subset of adult tissues [2,3]. Meanwhile RIP4 has been identified and initially characterized. These recent data suggest that RIP4 is involved in NF- $\kappa$ B and JNK signalling and that caspase-dependent processing of RIP4 may negatively regulate NF- $\kappa$ B-dependent pro-survival or pro-inflammatory signals [4].

### **SOURCE:**

Anti-RIP3 (MAb Rippy-3) was raised against recombinant human RIP3. Anti-RIP3 (MAb Rippy-3) was purified to  $\approx$ 95% in SDS-PAGE and is supplied at a concentration of 1 mg/1ml.

### **APPLICATION:**

This monoclonal antibody can be used to recognize human RIP3 by western blot.



**Figure:** Detection of human RIP3

**Method:** HEK 293T cells ( $5 \times 10^5$ ) mock transfected (lane 1) or transfected (lane 2) with an expression plasmid coding for human RIP3 were harvested, lysed and cell extracts ( $5 \times 10^5$ ) were resolved by SDS-PAGE under



reducing conditions, transferred to nitrocellulose and incubated with the RipPy-3 monoclonal antibody at a 1:1000 dilution for 2 hours. Proteins were visualized using a peroxidase-conjugated antibody to mouse IgG and a chemiluminescence detection system. **This product is for research use only.**

**STORAGE:**

This purified antibody is formulated as a liquid in PBS containing 0.02% sodium azide. This product should be shipped on blue ice, and long term storage is at -20°C. Short term storage may be at +4°C. If stored at -20°C undiluted, this product will be stable for at least 1 year after receipt. Avoid freeze/thaw cycles.

**RELATED PRODUCTS:**

Positive Control (Cell Lysate) for Antibodies to RIP3 (human), Catalog No. **XA-3006**.

**REFERENCES:**

1. *Identification of RIP3, a RIP-like kinase that activates apoptosis and NFkappaB*: P.W. Yu, et al.; Curr. Biol. **9**, 539 (1999).
2. *RIP3, a novel apoptosis-inducing kinase*: X. Sun, et al.; J. Biol. Chem. **274**, 16871 (1999).
3. *Mouse receptor interacting protein 3 does not contain a caspase-recruiting or a death domain but induces apoptosis and activates NF-kappaB*: N.J. Pazdernik, et al.; Mol. Cell. Biol. **19**, 6500 (1999).
4. *RIP4 (DIK/PKK), a novel member of the RIP kinase family, activates NF-kappa B and is processed during apoptosis*: E. Meylan, et al.; EMBO Rep. **3**, 1201 (2002).