

# RTP801 (IN) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat RTP801 (IN)

## Instruction Manual

Catalog Number	PK-AB718-4495
Synonyms	RTP801 Antibody: DNA damage inducible transcript 4, DDIT4, Dig2, REDD-1
Description	RTP801 was initially identified as a gene induced by DNA damage, and later found to also be regulated by other cellular stresses such as hypoxia and glucocorticoid treatment. Recently, RTP801 has been shown to act as a mediator of tuberous sclerosis complex (TSC)-dependent regulation of the mammalian Target of Rapamycin (mTOR), an evolutionarily conserved serine/threonine kinase that regulates cell growth and cell cycle. In response to energy stress, RTP801 inhibits mTOR function, resulting in dephosphorylation of downstream targets such as ribosomal protein S6 kinase 1 and 4EBP1 and decreasing cell growth. Disregulation of RTP801 may thus contribute to human tumorigenesis.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	RTP801 antibody was raised in rabbits against a 12 amino acid peptide from near the center of human RTP801.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC Note: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually.  RTP801 antibody can be used for the detection of RTP801 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.
Images	Available upon request.
References	Ellisen LW, Ramsayer KD, Johannessen CM, et al. REDD1, a developmentally regulated transcriptional target of p63 and p53, links p63 to regulation of reactive oxygen species. <i>Mol. Cell</i> 2002; 10:995-1005.  Shoshani T, Faerman A, Mett I, et al. Identification of a novel hypoxia-inducible factor 1-responsive gene, RTP801, involved in apoptosis. <i>Mol. Cell. Biol.</i> 2002; 22:2283-93.  Wang Z, Malone MH, Thomenius MJ, et al. Dexamethasone-induced gene 2 (dig2) is a novel pro-survival stress gene induced rapidly by diverse apoptotic signals. <i>J. Biol. Chem.</i> 2003; 278:27053-8.  Sofer A, Lei K, Johannessen CM, et al. Regulation of mTOR and cell growth in response to energy stress by REDD1. <i>Mol. Cell. Biol.</i> 2005; 25:5834-45.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4495P; RTP801 Peptide  Cat.No. PK-AB718-1305; Human Kidney Tissue Lysate

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