

hHBrk1 Rabbit pAb

hHBrk1 Rabbit pAb
Catalog # AP58284

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q8WUW1
Predicted	Human, Mouse, Rat, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	8745
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human hHBrk1
Epitope Specificity	31-75/75
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton
SIMILARITY	Belongs to the BRK1 family.
SUBUNIT	Homotrimer when in free form. Directly interacts withWASF2. Component of the WAVE1 complex composed of ABI2, CYFIP1 orCYFIP2, BRK1, NCKAP1 and WASF1/WAVE1. Within the complex, aheterodimer containing NCKAP1 and CYFIP1 interacts with aheterotrimer formed by WAVE1, ABI2 and BRK1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	HSPC300 (hematopoietic stem cell protein 300) is also known as probable protein BRICK1 or C3orf10 (chromosome 3 open reading frame 10) and is a 75 amino acid protein that is expressed as two isoforms and localizes to both the cytoplasm and the cytoskeleton. HSPC300 is thought to regulate cytoskeletal organization and Actin polymerization. Free HSPC300 exists as homotrimers prior to its incorporation into the WAVE complex. The WAVE complex includes five proteins, one of which is HSPC300, that regulate the ARC (Arp2/3 complex) which is responsible for Actin nucleation and is Rac 1-dependent. Because HSPC300 is a highly conserved subunit of the WAVE complex across many species, it is thought to have the same or similar functions in many different organisms. In Drosophila, the WAVE/ARC pathway may affect the development of the nervous system. HSPC300 is thought to localize to axons of the central nervous system of Drosophila embryos and thus may also be involved in axonogenesis. In addition, HSPC300 is thought to be necessary for synaptic morphogenesis by motoneurons. In mice, the knockout of the WAVE complex leads to learning and memory defects, and it is therefore hypothesized that HSPC300 may also be involved in cognitive functions. Genetic depletion of HSPC300 results in cytoskeletal abnormalities and prevents cytokinesis of cells, suggesting that decreased levels of HSPC300 may be associated with tumor suppression.

Additional Information

Gene ID	55845
Other Names	Protein BRICK1, BRK1, BRK1, C3orf10
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	BRK1
Synonyms	C3orf10
Function	Involved in regulation of actin and microtubule organization. Part of a WAVE complex that activates the Arp2/3 complex. As component of the WAVE1 complex, required for BDNF-NTRK2 endocytic trafficking and signaling from early endosomes (By similarity).
Cellular Location	Cytoplasm, cytoskeleton.

Background

HSPC300 (hematopoietic stem cell protein 300) is also known as probable protein BRICK1 or C3orf10 (chromosome 3 open reading frame 10) and is a 75 amino acid protein that is expressed as two isoforms and localizes to both the cytoplasm and the cytoskeleton. HSPC300 is thought to regulate cytoskeletal organization and Actin polymerization. Free HSPC300 exists as homotrimers prior to its incorporation into the WAVE complex. The WAVE complex includes five proteins, one of which is HSPC300, that regulate the ARC (Arp2/3 complex) which is responsible for Actin nucleation and is Rac 1-dependent. Because HSPC300 is a highly conserved subunit of the WAVE complex across many species, it is thought to have the same or similar functions in many different organisms. In *Drosophila*, the WAVE/ARC pathway may affect the development of the nervous system. HSPC300 is thought to localize to axons of the central nervous system of *Drosophila* embryos and thus may also be involved in axonogenesis. In addition, HSPC300 is thought to be necessary for synaptic morphogenesis by motoneurons. In mice, the knockout of the WAVE complex leads to learning and memory defects, and it is therefore hypothesized that HSPC300 may also be involved in cognitive functions. Genetic depletion of HSPC300 results in cytoskeletal abnormalities and prevents cytokinesis of cells, suggesting that decreased levels of HSPC300 may be associated with tumor suppression.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.