

# CYFIP1 Rabbit pAb

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Catalog # AP55436

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, E
<b>Primary Accession</b>	<a href="#">Q7L576</a>
<b>Predicted</b>	Human, Mouse, Rat, Pig, Rabbit, Sheep
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	145182
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human CYFIP1
<b>Epitope Specificity</b>	251-350/1253
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Cytoplasm > perinuclear region. Cell projection > lamellipodium. Cell projection > ruffle. Cell junction > synapse > synaptosome. Highly expressed in the perinuclear region. Enriched in synaptosomes, membrane ruffles and at the tips of lamellipodia.
<b>SIMILARITY</b>	Belongs to the CYFIP family.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	CYFIP1 are cytoplasmic proteins belonging to the CYFIP family. Both proteins bind GTP-bound Rac 1 to release FRM1 in its active state, which is thought to regulate mRNA translation of neural cytoskeletal proteins. A loss of CYFIP1 and CYFIP2 leads to mutant neurons with defective axonal growth and motor function. Also designated specifically Rac1-associated protein 1 (sra-1) or p140sra-1, CYFIP1 contains 1,253 amino acids and is a component of the WAVE2 complex. CYFIP1 is encoded by a gene that maps to human chromosome 15q11.2 and exists as three alternatively spliced isoforms. CYFIP2, also known as p53-inducible protein 121, contains 1,278 amino acids and plays a role in p53-dependent apoptosis. Existing as two alternatively spliced isoforms, CYFIP2 is a component of the WAVE1 complex and is encoded by a gene located on human chromosome 5q33.3.

## Additional Information

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<b>Gene ID</b>	23191
<b>Other Names</b>	Cytoplasmic FMR1-interacting protein 1, Specifically Rac1-associated protein 1, Sra-1, p140sra-1, CYFIP1 ( <a href="#">HGNC:13759</a> )
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=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

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**Name** CYFIP1 ( [HGNC:13759](#))

**Function** Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression. In the CYFIP1-EIF4E- FMR1 complex this subunit is an adapter between EIF4E and FMR1. Promotes the translation repression activity of FMR1 in brain probably by mediating its association with EIF4E and mRNA (By similarity). Regulates formation of membrane ruffles and lamellipodia. Plays a role in axon outgrowth. Binds to F-actin but not to RNA. Part of the WAVE complex that regulates actin filament reorganization via its interaction with the Arp2/3 complex. Actin remodeling activity is regulated by RAC1. Regulator of epithelial morphogenesis. As component of the WAVE1 complex, required for BDNF-NTRK2 endocytic trafficking and signaling from early endosomes (By similarity). May act as an invasion suppressor in cancers.

**Cellular Location** Cytoplasm {ECO:0000250|UniProtKB:Q7TMB8}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q7TMB8}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q7TMB8}. Cell projection, ruffle {ECO:0000250|UniProtKB:Q7TMB8}. Synapse, synaptosome {ECO:0000250|UniProtKB:Q7TMB8}. Note=Highly expressed in the perinuclear region (By similarity). Enriched in synaptosomes (By similarity). Also enriched in membrane ruffles and at the tips of lamellipodia (By similarity). {ECO:0000250|UniProtKB:Q7TMB8}

## Background

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CYFIP1 are cytoplasmic proteins belonging to the CYFIP family. Both proteins bind GTP-bound Rac 1 to release FRM1 in its active state, which is thought to regulate mRNA translation of neural cytoskeletal proteins. A loss of CYFIP1 and CYFIP2 leads to mutant neurons with defective axonal growth and motor function. Also designated specifically Rac1-associated protein 1 (sra-1) or p140sra-1, CYFIP1 contains 1,253 amino acids and is a component of the WAVE2 complex. CYFIP1 is encoded by a gene that maps to human chromosome 15q11.2 and exists as three alternatively spliced isoforms. CYFIP2, also known as p53-inducible protein 121, contains 1,278 amino acids and plays a role in p53-dependent apoptosis. Existing as two alternatively spliced isoforms, CYFIP2 is a component of the WAVE1 complex and is encoded by a gene located on human chromosome 5q33.3.

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