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KALRN Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54650

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O60229
Reactivity	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	340261
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KALRN/Duo
Epitope Specificity	1401-1500/2985
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. Cytoplasm, cytoskeleton. Note=Associated with the cytoskeleton.
SIMILARITY	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. Contains 1 CRAL-TRIO domain. Contains 2 DH (DBL-homology) domains. Contains 1 fibronectin type-III domain. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 2 PH domains. Contains 1 protein kinase domain. Contains 2 SH3 domains. Contains 5 spectrin repeats.
SUBUNIT	Interacts with the C-terminal of peptidylglycine alpha-amidating monooxygenase (PAM) and with the huntingtin-associated protein 1 (HAP1) (By similarity). Interacts with FASLG.
Post-translational modifications	Autophosphorylated.
DISEASE	Genetic variation in KALRN is associated with susceptibility to coronary heart disease type 5 (CHDS5) [MIM:608901]. CHD is the leading cause of death and disability worldwide. CHD is multifactorial disease with a strong genetic component. Classic epidemiologic studies have revealed many risk factors for CHD, including age, sex, hypertension, dyslipidemia, diabetes mellitus, smoking, and physical inactivity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	HAP1 (huntingtin-associated protein 1) binds to huntingtin. Huntingtin is a protein that contains a polyglutamine region and when the number of glutamine repeats exceeds 35, the gene encodes a version of huntingtin that leads to Huntington's disease (HD). The ability of HAP1 to bind to huntingtin is enhanced by an expanded polyglutamine repeat region. HAP1 shows neuronal localization and moves with huntingtin in nerve fibers. HAP1 is primarily expressed in brain tissue, with greater expression in the olfactory bulb and brain stem. Mouse HAP1 is localized to membrane-bound organelles including large endosomes, tubulovesicular structures and budding vesicles in neurons. Duo, also designated huntingtin-associated protein interacting protein or HAPIP, binds Huntingtin-associated protein 1 (HAP1) and may have a role in vesicle trafficking and cytoskeletal function.

Additional Information

Gene ID	8997
Other Names	Kalirin, 2.7.11.1, Huntingtin-associated protein-interacting protein, Protein Duo, Serine/threonine-protein kinase with Dbl- and pleckstrin homology domain, KALRN (HGNC:4814), DUET, DUO, HAPIP, TRAD
Target/Specificity	Isoform 2 is brain specific. Highly expressed in cerebral cortex, putamen, amygdala, hippocampus and caudate nucleus. Weakly expressed in brain stem and cerebellum. Isoform 4 is expressed in skeletal muscle.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	KALRN (HGNC:4814)
Synonyms	DUET, DUO, HAPIP, TRAD
Function	Promotes the exchange of GDP by GTP. Activates specific Rho GTPase family members, thereby inducing various signaling mechanisms that regulate neuronal shape, growth, and plasticity, through their effects on the actin cytoskeleton. Induces lamellipodia independent of its GEF activity.
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Note=Associated with the cytoskeleton
Tissue Location	Isoform 2 is brain specific. Highly expressed in cerebral cortex, putamen, amygdala, hippocampus and caudate nucleus Weakly expressed in brain stem and cerebellum. Isoform 4 is expressed in skeletal muscle.