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| Product name: | Duo Rabbit Polyclonal Antibody |
| Cat number: | ABN10193 |
| Conjugate: | Unconjugated |
| Size: | 100µL |
| Clone: | Polyclonal |
| Concentration: | 1mg/ml |
| Host: | Rabbit |
| Isotype: | IgG |
| Immunogen: | Synthesized peptide derived from Duo . at AA range: 810-890 |
| Reactivity: | Human,Mouse,Rat |
| Applications: | WB 1:500-1:2000,ELISA 1:10000-1:20000 |
| Purification: | Affinity purification |
| Form: | Liquid |
| Buffer: | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N. |
| Storage: | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles. |

Background:

Huntington's disease (HD), a neurodegenerative disorder characterized by loss of striatal neurons, is caused by an expansion of a polyglutamine tract in the HD protein huntingtin. This gene encodes a protein that interacts with the huntingtin-associated protein 1, which is a huntingtin binding protein that may function in vesicle trafficking. [provided by RefSeq, Apr 2016], catalytic activity: ATP + a protein = ADP + a phosphoprotein., cofactor: Magnesium., 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., domain: The two GEF domains catalyze nucleotide exchange for RAC1 and RhoA which are bound by DH1 and DH2 respectively. The two GEF domains appear to play differing roles in neuronal development and axonal outgrowth. SH3 1 binds to the first GEF domain inhibiting GEF activity only when in the presence of a PXXP peptide, suggesting that the SH3 domain/peptide interaction mediates binding to GEF1. CRK1 SH3 domain binds to and inhibits GEF1 activity., 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., miscellaneous: Called DUO because the encoded protein is closely related to but shorter than TRIO., PTM: Autophosphorylated., sequence caution: Contaminating sequence. Potential poly-A sequence., similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family., similarity: Contains 1 CRAL-TRIO domain., similarity: Contains 1 fibronectin type-III domain., similarity: Contains 1 Ig-like C2-type (immunoglobulin-like) domain., similarity: Contains 1 protein kinase domain., similarity: Contains 2 DH (DBL-homology) domains., similarity: Contains 2 PH domains., similarity: Contains 2 SH3 domains., similarity: Contains 5 spectrin repeats., subcellular location: Associated with the cytoskeleton., subunit: Interacts with the C-terminal of peptidylglycine alpha-amidating monooxygenase (PAM) and with the huntingtin-associated protein 1 (HAP1)., tissue 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.,