

Product datasheet for **TA328986**

Kcnip1 Rabbit Polyclonal Antibody

Product data:

| | |
|------------------------|--|
| Product Type: | Primary Antibodies |
| Applications: | WB |
| Recommended Dilution: | WB: 1:200-1:2000 |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Immunogen: | Peptide (C)SLQTKQRRPSKD, corresponding to amino acid residues 10-21 of rat KChIP1 . N-terminal part. |
| Formulation: | Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN ₃ . |
| Reconstitution Method: | Add 50 ul double distilled water (DDW) to the lyophilized powder. |
| Purification: | Affinity purified on immobilized antigen. |
| Conjugation: | Unconjugated |
| Storage: | Store at -20°C as received. |
| Stability: | Stable for 12 months from date of receipt. |
| Gene Name: | potassium voltage-gated channel interacting protein 1 |
| Database Link: | NP_075218 Entrez Gene 30820 Human Entrez Gene 70357 Mouse Entrez Gene 65023 Rat Q8R426 |



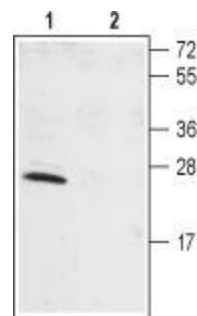
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Background:

Voltage gate K⁺ (KV) channels form functional entities by the assembly of four α subunits and auxiliary subunits. Various auxiliary subunits are known to interact with KV channels thereby modulating various properties such as gating, activation and inactivation of the channels as well as influence the trafficking of the channels to the cell's plasma membrane. KChIPs (KV Channel Interacting Proteins) are cytoplasmic proteins which belong to the neural Ca²⁺ sensor (NCS) family of Ca²⁺ binding EF-hand proteins. To date, KChIP1-4 have been identified. All four KChIPs have a conserved C-terminal domain, which has four EF-hand-like Ca²⁺ binding motifs. The N-terminal region is differs among the various KChIPs and attributes different properties regarding the regulation of KV channels¹. KChIPs regulate different properties of KV channels such as their cell surface expression (mediated by proper trafficking of the various subunits), channel assembly and gating. Specifically, KChIP1 strongly regulates the activity of the KV4 channel family¹. KChIP1 has also been found to assist GABA-mediated IPSCs (inhibitory postsynaptic currents) by increasing the release of presynaptic transmitter⁵. Furthermore, KChIP knockout mice display an increase in anxiety-like behavior compared to their wild type counterparts. KChIP1, 3, and 4 are mostly expressed in the brain while KChIP2 is expressed in the heart and in the brain⁴⁻⁶.

Synonyms:

KCHIP1; MGC95; VABP

Product images:

Western blot analysis of rat brain lysate: 1. Anti-KChIP1 antibody, (1:200). 2. Anti-KChIP1 antibody, preincubated with the control peptide antigen.