

## Potassium channel Kv4.3 with regulatory subunit KCHIP1

Cat. No. CBCRY08 Lot. No. (See product label)

### SPECIFICATION

<b>Source</b>	E.coli
<b>Background</b>	The structure reveals a unique clamping action of the complex, in which a single KCHIP1 molecule, as a monomer, laterally clamps two neighboring Kv4.3 N-termini in a 4:4 manner, forming an octamer. The proximal N-terminal peptide of Kv4.3 is sequestered by its binding to an elongated groove on the surface of KCHIP1, which is indispensable for the modulation of Kv4.3 by KCHIP1, and the same KCHIP1 molecule binds to an adjacent T1 domain to stabilize the tetrameric Kv4.3 channels.
<b>Protein Classification</b>	membrane protein
<b>Structure Weight</b>	75748.88
<b>Polymer</b>	1
<b>Molecule</b>	Kv channel-interacting protein 1
<b>Chain Length</b>	180 amino acids
<b>PDB ID</b>	<a href="#">2NZ0</a>
<b>MMDB ID</b>	<a href="#">43547</a>
<b>Method</b>	X-Ray Diffraction

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<b>Resolution</b>	3.2Å
<b>Ligand Chemical Component</b>	Calcium ion; Zinc ion
<b>Reference</b>	Wang, H., Yan, Y., Liu, Q., Huang, Y., Shen, Y., Chen, L., Chen, Y., Yang, Q., Hao, Q., Wang, K., Chai, J. (2007) Structural basis for modulation of Kv4 K(+) channels by auxiliary KCHIP subunits. Nat.Neurosci. 10: 32-39

## GENE INFORMATION

<b>Gene Name</b>	KCNIP1
<b>Synonyms</b>	KCHIP1; MGC95; VABP; A-type potassium channel modulatory protein 1; potassium channel interacting protein 1; vesicle APC-binding protein; Kv channel interacting protein 1
<b>UniProt ID</b>	Q9NZI2
<b>Chromosome Location</b>	5q35.1
<b>Function</b>	calcium ion binding; potassium channel activity; potassium ion binding; protein binding; voltage-gated ion channel activity
<b>Gene ID</b>	3738

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