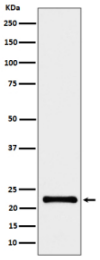
CRCP Antibody / CGRP receptor component protein [clone 30C57] (FY13063)

Catalog No.	Formulation	Size
FY13063	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30C57
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O75575
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Immunoprecipitation: 1:50
Limitations	This CRCP antibody is available for research use only.



Western blot analysis of CRCP expression in human HeLa cell lysate using the CRCP antibody. A single band is detected at approximately 22-23 kDa, higher than the predicted 16 kDa molecular weight. This migration pattern is consistent with published data showing that CRCP commonly runs near 20-23 kDa due to its acidic composition, partial membrane association, and post-translational modifications such as phosphorylation and N-terminal acetylation. The observed band therefore represents the mature functional form of CRCP.

Description

CRCP antibody detects CGRP receptor component protein, encoded by the CRCP gene. This protein is a cytosolic and membrane associated component that is essential for functional signaling of calcitonin gene related peptide (CGRP) receptors. CRCP interacts with calcitonin receptor like receptor and receptor activity modifying proteins to stabilize receptor complexes and couple them to intracellular signaling. CRCP antibody provides researchers with a critical tool for investigating neuropeptide signaling, vascular regulation, and pain pathways.

CGRP is a neuropeptide involved in vasodilation, pain transmission, and neurogenic inflammation. Functional CGRP receptors require three components: calcitonin receptor like receptor, a receptor activity modifying protein, and CRCP. Research using CRCP antibody has shown that CRCP is required for coupling receptor activation to downstream signaling through G proteins and adenylyl cyclase. Without CRCP, receptor complexes fail to properly signal, underscoring its essential role as a scaffolding factor in peptide receptor function.

CRCP has been extensively studied in the context of migraine. CGRP is a well established mediator of migraine attacks, and antagonists of CGRP receptors have been developed as effective migraine therapies. Studies with CRCP antibody have confirmed that CRCP expression levels influence receptor signaling efficiency, making it an important determinant of migraine susceptibility and treatment response. Because CGRP signaling also regulates vascular tone, CRCP plays a role in cardiovascular homeostasis as well.

Beyond migraine, CRCP contributes to nociception, inflammation, and central nervous system function. Research with CRCP antibody has demonstrated that reduced expression impairs neuronal responses to CGRP, while overexpression amplifies vasodilatory and inflammatory signaling. Its expression in vascular smooth muscle and neuronal tissue highlights its dual roles in vascular biology and sensory processing. Dysregulation of CRCP may therefore contribute to both neurological and cardiovascular disease.

CRCP antibody is applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting confirms expression in neuronal and vascular tissues, immunohistochemistry highlights its distribution in smooth muscle and brain, and immunofluorescence demonstrates colocalization with receptor partners. These approaches make CRCP antibody a versatile tool for examining receptor assembly, neuropeptide signaling, and disease mechanisms.

By supplying validated CRCP antibody reagents, NSJ Bioreagents supports research into neuropeptide biology, migraine, and vascular regulation. Detection of CGRP receptor component protein allows researchers to explore how receptor assembly and signaling influence health and disease.

Application Notes

Optimal dilution of the CRCP antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human CRCP was used as the immunogen for the CRCP antibody.

Storage

Store the CRCP antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.