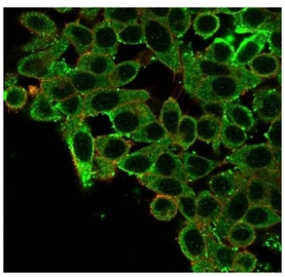
CNOT10 Antibody / CCR4-NOT Complex Protein Antibody [clone PCRP-CNOT10-1D5] (V9648)

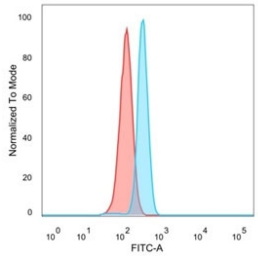
Catalog No.	Formulation	Size
V9648-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9648-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9648SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

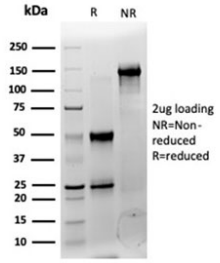
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c
Clone Name	PCRP-CNOT10-1D5
Purity	Protein A/G affinity
UniProt	Q9H9A5
Localization	Cytoplasm (Mitochondrion) and Nucleus (PML body)
Applications	ELISA (order BSA-free Format For Coating) : Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml
Limitations	This CNOT10 Antibody / CCR4-NOT Complex Protein Antibody is available for research use only.



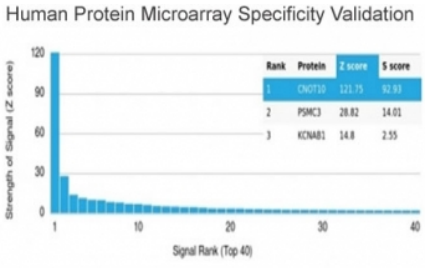
CNOT10 Antibody HeLa IF. Immunofluorescent analysis of PFA-fixed human HeLa cells stained with CNOT10 Antibody demonstrates prominent cytoplasmic and perinuclear green fluorescence consistent with CNOT10 / CCR4-NOT complex-associated regulatory pathway localization. This CCR4-NOT complex protein antibody highlights RNA metabolism-associated signaling and post-transcriptional regulatory pathway organization within epithelial-derived cells. Phalloidin co-staining (red) labels actin-associated cytoskeletal structures.



CNOT10 Antibody HeLa FACS. Flow cytometry analysis of PFA-fixed human HeLa cells stained with CNOT10 Antibody demonstrates a distinct right-shifted fluorescence population relative to the isotype control, consistent with CNOT10-associated expression involved in CCR4-NOT complex-mediated RNA metabolism and post-transcriptional regulatory signaling pathways. This CCR4-NOT complex protein antibody supports characterization of transcript-associated regulatory protein expression in epithelial-derived cells. Blue=CNOT10 antibody, Red=isotype control.



SDS-PAGE analysis of purified, BSA-free CNOT10 antibody (clone PCRP-CNOT10-1D5) as confirmation of integrity and purity.



CNOT10 Antibody Protein Microarray Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using CNOT10 Antibody demonstrates highly selective recognition of CNOT10 with exceptionally strong separation from non-target proteins across the tested human proteome. These results demonstrate the foremost specificity of the PCRP-CNOT10-1D5 mAb and support highly specific detection of CCR4-NOT complex-associated regulatory signaling pathways and RNA metabolism-associated proteins. The Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. The markedly elevated S-score separation observed for CNOT10 supports preferential target recognition with minimal off-target binding across the tested human proteome.

Description

CCR4-NOT transcription complex subunit 10 (CNOT10) is a regulatory component of the CCR4-NOT multiprotein complex involved in mRNA turnover, transcriptional regulation, RNA metabolism, translational control, and cellular homeostasis-associated signaling pathways. The CCR4-NOT complex functions as a central regulator of gene expression through coordination of mRNA deadenylation, transcript stability, protein translation, and RNA-associated quality control mechanisms. CNOT10 Antibody is useful for investigations involving RNA metabolism, post-transcriptional regulation, transcription-associated signaling pathways, and CCR4-NOT complex-associated cellular regulation.

CNOT10 antibody, also referred to as CCR4-NOT transcription complex subunit 10 antibody and CCR4-NOT complex protein antibody in the literature, recognizes a predominantly cytoplasmic regulatory protein encoded on chromosome 3p21.31. CNOT10 functions as part of the NOT module within the CCR4-NOT complex and contributes to stabilization and organization of multiprotein regulatory assemblies involved in mRNA deadenylation and transcript-associated signaling pathways. Expression of CNOT10 has been associated with regulation of RNA stability, stress-response signaling, translational repression, and cellular differentiation-associated gene expression networks.

CNOT10 Antibody / CCR4-NOT Complex Protein Antibody (clone PCRP-CNOT10-1D5) is uniquely positioned for studies involving post-transcriptional gene regulation and RNA-associated signaling biology. This mouse monoclonal antibody demonstrates immunofluorescence and flow cytometric detection together with highly selective HuProt(TM) microarray specificity validation against more than 19,000 full-length human proteins. The combined validation profile supports use of clone PCRP-CNOT10-1D5 in investigations involving RNA metabolism-associated signaling pathways, transcriptional regulation complexes, and post-transcriptional cellular control mechanisms.

Analysis of HuProt(TM) microarrays containing more than 19,000 individually purified full-length human proteins

demonstrated highly selective recognition of CNOT10 by clone PCRP-CNOT10-1D5. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target binding across the tested human proteome. This specificity validation strategy supports highly selective detection of CCR4-NOT complex-associated regulatory proteins in complex cellular systems.

CNOT10 contributes to regulation of transcript stability and mRNA-associated signaling pathways through interactions with additional CCR4-NOT complex subunits involved in RNA deadenylation and translational repression. Dysregulation of CCR4-NOT complex-associated signaling has been linked to developmental abnormalities, altered cellular differentiation, stress-response dysregulation, tumor-associated signaling pathways, and defects in RNA quality control-associated cellular regulation. Because CNOT10 functions as part of a central post-transcriptional regulatory complex, it serves as an important marker for investigations involving RNA metabolism and gene expression-associated signaling biology.

This CNOT10 Antibody supports research involving CCR4-NOT complex biology, RNA metabolism-associated signaling, post-transcriptional regulation, transcript stability pathways, translational control, stress-response signaling, and gene expression-associated cellular regulation. Clone PCRP-CNOT10-1D5 may be incorporated into immunofluorescence, flow cytometry, and tissue-based investigations examining RNA regulatory pathway organization in normal and diseased cells.

Explore additional transcriptional regulation and RNA metabolism pathway markers on our Signal Transduction Antibodies page, including antibodies targeting post-transcriptional regulation, RNA stability signaling, and gene expression-associated cellular control pathways.

Application Notes

Optimal dilution of the CNOT10 Antibody / CCR4-NOT Complex Protein Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the CNOT10 antibody.

Storage

Aliquot the CNOT10 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CNOT10 antibody, CCR4-NOT transcription complex subunit 10 antibody, CCR4-NOT complex protein antibody, Carbon catabolite repression 4-negative on TATA-less antibody, CNOT10 transcriptional regulation antibody