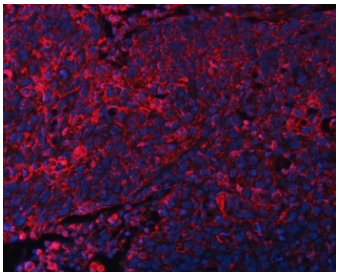
DOCK1 Antibody / Cell Migration Protein Antibody (RQ7519)

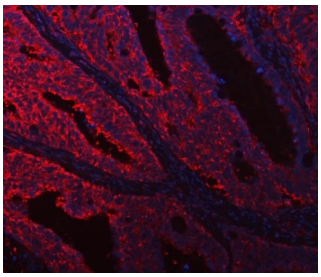
Catalog No.	Formulation	Size
RQ7519	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

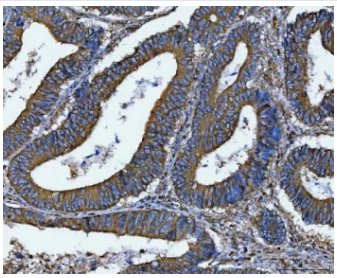
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q14185
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This DOCK1 Antibody / Cell Migration Protein Antibody is available for research use only.



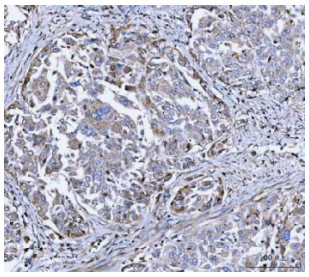
DOCK1 Antibody Esophageal Squamous Cell Carcinoma IF. Immunofluorescent staining of FFPE human esophageal squamous cell carcinoma tissue using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates widespread cytoplasmic and membranous staining (red) throughout malignant epithelial cell populations, consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1 is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, and cellular adhesion through activation of Rac-dependent signaling pathways. The observed staining pattern is consistent with the established role of DOCK1 in coordinating dynamic cellular behavior and tissue organization. DAPI nuclear stain (blue) identifies cell nuclei and provides contrast to the predominantly cytoplasmic distribution of DOCK1. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



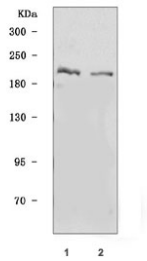
DOCK1 Antibody Human Intestinal Cancer IF. Immunofluorescent staining of FFPE human intestinal cancer tissue using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates widespread cytoplasmic staining (red) throughout malignant epithelial and stromal-associated cellular compartments, consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1 is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, cellular adhesion, and signaling pathways involved in tissue organization. The extensive staining pattern is consistent with the established role of DOCK1 in coordinating dynamic cellular interactions and motility-associated processes within complex tissue microenvironments. DAPI nuclear stain (blue) identifies cell nuclei and provides contrast to the predominantly cytoplasmic distribution of DOCK1. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



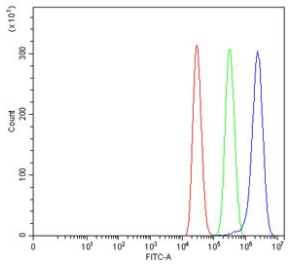
DOCK1 Antibody Human Colorectal Adenocarcinoma IHC. Immunohistochemistry staining of FFPE human colorectal adenocarcinoma tissue using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates strong cytoplasmic and membranous staining within malignant gland-forming epithelial cells, consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1 is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, cellular adhesion, and tissue organization through activation of Rac-dependent signaling pathways. The observed staining pattern is consistent with the established role of DOCK1 in coordinating dynamic cellular behavior and interactions with the surrounding microenvironment. These findings support the utility of DOCK1 antibody for studies of cell migration, cytoskeletal regulation, and signaling pathways involved in tissue architecture and cellular motility. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



DOCK1 Antibody Human Lung Adenocarcinoma IHC. Immunohistochemistry staining of FFPE human lung adenocarcinoma tissue using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates moderate cytoplasmic staining within malignant epithelial cell populations, consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1 is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, cellular adhesion, and tissue organization through activation of Rac-dependent signaling pathways. The observed staining pattern is consistent with the established role of DOCK1 in coordinating dynamic cellular behavior and communication with the surrounding tissue microenvironment. These findings support the utility of DOCK1 antibody for studies of cell migration, cytoskeletal regulation, and signaling pathways involved in tissue architecture and cellular motility. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



DOCK1 Antibody Human Cell Line WB. Western blot analysis of human 293T and MCF7 cell lysates using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates a distinct immunoreactive band at approximately 180-215 kDa, consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1, also known as DOCK180, is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, cellular adhesion, and tissue organization through activation of Rac-dependent signaling pathways. The observed expression across multiple human cell lines supports the utility of this antibody for investigating signaling networks that control cellular motility, morphogenesis, and dynamic cytoskeletal regulation. Predicted molecular weight: ~215 kDa; routinely observed at 180-215 kDa.



DOCK1 Antibody MCF7 Flow Cytometry. Flow cytometric analysis of human MCF7 cells using DOCK1 Antibody / Cell Migration Protein Antibody demonstrates a pronounced rightward shift of the blue histogram (DOCK1 antibody) relative to the green histogram (isotype control) and red histogram (cells alone), consistent with expression of Dedicator of Cytokinesis 1 (DOCK1). DOCK1 is a Rac guanine nucleotide exchange factor that regulates cell migration, cytoskeletal remodeling, cellular adhesion, and tissue organization through activation of Rac-dependent signaling pathways. The observed staining pattern supports detection of endogenous DOCK1 expression and demonstrates the utility of this antibody for studies of cellular motility, cytoskeletal regulation, and migration-associated signaling networks. Cells were stained with 1 ug antibody per million cells following blocking with goat sera.

Description

DOCK1 Antibody / Cell Migration Protein Antibody is designed for the detection and study of DOCK1 (Dedicator of Cytokinesis 1), a member of the DOCK family of guanine nucleotide exchange factors that regulate signaling through Rac-family small GTPases. Also known as DOCK180, DOCK1 functions as a central regulator of cytoskeletal dynamics and cellular movement by linking extracellular stimuli to intracellular signaling pathways. Through these activities, DOCK1 plays an important role in controlling cellular morphology, adhesion, migration, and tissue organization.

As a cell migration protein, DOCK1 promotes activation of Rac GTPases that govern actin cytoskeletal remodeling and cellular polarity. These signaling pathways allow cells to dynamically adjust their shape, establish directional movement, and coordinate interactions with neighboring cells and the extracellular matrix. Through regulation of these processes, DOCK1 contributes to biologic functions requiring precise control of cellular positioning and movement.

DOCK1 is widely recognized for its involvement in developmental biology, tissue morphogenesis, wound repair, and immune cell function. By regulating Rac-dependent signaling networks, DOCK1 influences numerous cellular behaviors that are essential for normal tissue formation and maintenance. Its activity helps coordinate communication between external environmental cues and intracellular structural responses, enabling cells to adapt to changing physiologic conditions.

Beyond its developmental functions, DOCK1 has become an important target in research involving cancer biology, cell invasion, metastasis, neuronal development, and regenerative processes. Cellular migration and cytoskeletal remodeling are fundamental features of many physiologic and pathologic processes, making DOCK1 a valuable marker for studies examining how signaling pathways regulate dynamic cellular behavior. Researchers continue to investigate the mechanisms by which DOCK1 controls cell movement and tissue organization across a wide range of biologic systems.

As a cell migration protein, DOCK1 occupies a critical position within signaling pathways that integrate extracellular signals with cytoskeletal remodeling machinery. Its role as a Rac activator places it at the center of pathways governing cellular motility, adhesion, polarity, and morphogenesis. This combination of functions has established DOCK1 as a widely studied regulator of cellular dynamics and tissue architecture.

DOCK1 Antibody is useful for investigating cell migration, Rac signaling, cytoskeletal regulation, cellular adhesion, and developmental biology pathways. Researchers utilize DOCK1 Antibody reagents to evaluate protein expression patterns and study molecular mechanisms governing tissue morphogenesis, cellular organization, intracellular signaling, and regulation of dynamic cellular processes.

Explore additional antibodies to cell migration proteins, cytoskeletal regulators, and Rac signaling mediators on our Cell Biology Antibodies page.

Application Notes

Optimal dilution of the DOCK1 Antibody / Cell Migration Protein Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids S100-T1732) was used as the immunogen for the DOCK1 antibody.

Storage

After reconstitution, the DOCK1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

DOCK1 Antibody, Dedicator of Cytokinesis 1 Antibody, DOCK180 Antibody, Cell Migration Protein Antibody, Rac Signaling Protein Antibody, Cytoskeletal Regulation Protein Antibody, Rho GEF Family Protein Antibody

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