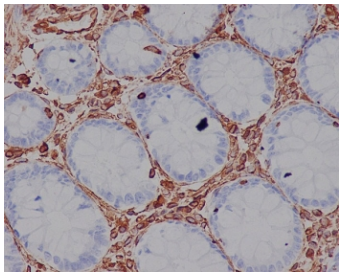
VIM Antibody / Intermediate Filament Assembly Marker Antibody [clone AGF-22] (RQ5250)

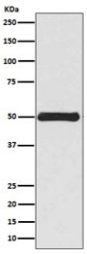
Catalog No.	Formulation	Size
RQ5250	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AGF-22
Purity	Affinity purified
UniProt	P08670
Localization	Cytoplasmic, nuclear, cell membrane
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:50-1:200 Immunofluorescence : 1:50-1:200
Limitations	This VIM antibody is available for research use only.



VIM Antibody / Intermediate Filament Assembly Marker Antibody. Immunohistochemistry analysis of FFPE human colon tissue using Vimentin antibody shows strong HRP-DAB brown cytoplasmic staining in stromal and pericryptal mesenchymal cells surrounding colonic glands, with minimal staining in epithelial cells. The staining appears as organized filamentous networks distributed throughout the cytoplasm, consistent with assembled intermediate filament structures. The pattern of Vimentin-positive cells and filament organization supports its role in intermediate filament assembly and cytoskeletal network formation within stromal compartments.



VIM Antibody. Western blot testing of human HEK293 cell lysate with VIM antibody. Expected molecular weight: 53-58 kDa.

VIM Antibody / Intermediate Filament Assembly Marker Antibody. Immunofluorescence analysis of human HeLa cells using Vimentin antibody (green) and DAPI nuclear counterstain (blue) shows a prominent filamentous network extending throughout the cytoplasm. The staining reveals interconnected intermediate filament structures radiating from the perinuclear region toward the cell periphery, consistent with organized filament assembly. The distribution and continuity of these filament networks support the role of Vimentin in intermediate filament assembly and cytoskeletal network formation.

Description

Vimentin (VIM) is a type III intermediate filament protein that plays a central role in the assembly and organization of cytoskeletal filament networks in mesenchymal cells. VIM Antibody / Intermediate Filament Assembly Marker Antibody is specifically positioned for studying filament polymerization, network formation, and cytoskeletal assembly processes. This VIM Antibody is uniquely positioned for analyzing intermediate filament assembly dynamics and structural network formation in cells undergoing cytoskeletal organization and reorganization, making it highly relevant for studies focused on filament biogenesis rather than downstream structural or migratory functions. Vimentin is also referred to as Vimentin antibody, VIM antibody, and intermediate filament protein antibody in the literature.

Vimentin assembles through a tightly regulated process involving dimer formation, tetramer alignment, and higher-order filament polymerization. These assembly steps are essential for generating a functional cytoskeletal network capable of supporting cellular architecture and mechanical stability. The VIM Antibody / Intermediate Filament Assembly Marker Antibody enables investigation of these early-stage cytoskeletal processes, particularly in cells actively forming or reorganizing filament networks.

In biological systems, filament assembly is critical for maintaining cellular integrity and enabling adaptation to developmental or environmental changes. Vimentin expression is closely associated with cells that require robust filament network formation, including mesenchymal cells and activated stromal populations. Disruption of Vimentin assembly can lead to altered cytoskeletal structure and impaired cellular function.

Functionally, Vimentin coordinates with other cytoskeletal components to ensure proper filament organization and integration into the broader cytoskeletal framework. The VIM Antibody / Intermediate Filament Assembly Marker Antibody differentiator is central to this antibody, positioning it specifically for studies focused on filament formation and cytoskeletal assembly rather than adhesion, migration, or remodeling processes. A VIM Antibody provides a valuable tool for analyzing intermediate filament biogenesis, polymerization dynamics, and cytoskeletal network formation in diverse cellular systems.

Application Notes

Optimal dilution of the VIM Antibody / Intermediate Filament Assembly Marker Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Vimentin / VIM was used as the immunogen for the VIM Antibody / Intermediate

Filament Assembly Marker Antibody.

Storage

Store the VIM antibody at -20oC.

Alternate Names

Vimentin antibody, VIM antibody, intermediate filament assembly antibody, cytoskeletal assembly marker antibody, filament polymerization marker antibody, mesenchymal filament protein antibody