Anti-Vimentin Antibody

IRS214RT



Product Type: Recombinant Chimeric Antibody IgG1, primary antibodies

Species reactivity: Human
Applications: mIHC

Molecular Wt: Predicted band size: 54 kDa

Description:

Vimentin (57 kDa) is the most ubiquituos intermediate filament protein and the first to be expressed during cell differentiation. All primitive cell types express vimentin but in most non-mesenchymal cells it is replaced by other intermediate filament proteins during differentiation. Vimentin is expressed in a wide variety of mesenchymal cell types: fibroblasts, endothelial cells etc., and in a number of other cell types derived from mesoderm, e.g., mesothelium and ovarian granulosa cells. Vimentin is present in many different neoplasms but is particulary expressed in those originated from mesenchymal cells. Sarcomas e.g., fibrosarcoma, malignt fibrous histiocytoma, angiosarcoma, and leio- and rhabdomyosarcoma, as well as lymphomas, malignant melanoma and schwannoma, are virtually always vimentin positive. Mesoderm derived carcinomas like renal cell carcinoma, adrenal cortical carcinoma and adenocarcinomas from endometrium and ovary usually express vimentin. Also thyroid carcinomas are vimentin positive. Any low differentiated or sarcomatoid carcinoma may express some vimentin. Vimentin is frequently included in the so-called primary panel (together with CD45, cytokeratin, and S-100 protein): Intense staining reaction for vimentin without coexpression of other intermediate filament proteins is strongly suggestive of a mesenchymal tumour or a malignant melanoma. However, in biopsies representing only a sarcomatoid part of renal cell carcinoma a.o. a strong positivity for vimentin without cytokeratin expression may be seen. Tumours like lymphomas and seminomas have the same intermediate filament profile, but the vimentin expression is usually weaker.

Immunogen: Synthetic peptide within C-terminal human Vimentin.

Positive control: Human lung tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: P08670 Human

Recommended Dilutions:

mI HC 1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

Purity: Protein A affinity purified.

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Images

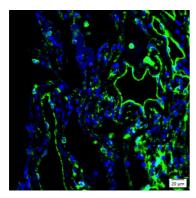


Fig1: mIHC analysis of human lung tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rat anti-Vimentin antibody (IRS214RT) at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at $95\,^{\circ}\mathrm{C}$. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Ridge KM et al. Roles of vimentin in health and disease. Genes Dev. 2022 Apr
- 2. Kuburich NA et al. Vimentin and cytokeratin: Good alone, bad together. Semin Cancer Biol. 2022 Nov