DATASHEET

Ras (mutated Q61R) Rabbit Monoclonal Antibody(SP174)

CAT. NO. ARA5851

KEY FEATURES

Target:	Ras (mutated Q61R)	**Clone ID:**	SP174
Source/Host:	Rabbit	**Reactivity:**	Human
Clonality:	Monoclonal	**Applications:**	IHC
Storage:	at-20°C		

BACKGROUND

Ras proteins (HRAS, KRAS and NRAS) are small GTPases that act as molecular switches in signal transduction, cycling between an inactive GDP-bound state and an active GTP-bound state to relay growth factor signals through the RAS-MAPK and PI3K-AKT pathways, thereby regulating cell proliferation, differentiation and survival. Mutations in RAS genes are among the most common oncogenic drivers in human cancer. Hotspot mutations at codon 61 (Q61), such as Q61R, impair the intrinsic GTPase activity of Ras, locking the protein in a constitutively active GTP-bound state and promoting uncontrolled cell growth and tumorigenesis. Q61 mutations are frequently detected in NRAS (e.g. in melanoma and thyroid carcinoma) and are also found in KRAS and HRAS, and are observed in colorectal cancer, melanoma, lung adenocarcinoma and other malignancies. Ras (mutated Q61R) Rabbit Monoclonal Antibody(SP174) specifically recognizes Ras proteins carrying the Q61R mutation and is suitable for detecting this mutation in formalin-fixed, paraffin-embedded (FFPE) tissue sections by immunohistochemistry.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

IHC	1:100-1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

OVERVIEW

Description	Rabbit monoclonal antibody to Ras (mutated Q61R)
Specificity	Recognizes the Ras Q61R mutation (HRAS Q61R, KRAS Q61R and NRAS Q61R); has also been found to react with other mutations at Q61 that were tested (e.g. NRAS Q61K), while nearly no staining of wild-type NRAS or NRAS Q61H/Q61L mutants was observed in IHC. Not all possible mutations at Q61 have been tested.
Antibody Type	Primary antibody,Recombinant
Purification	Protein A/G affinity purified.
Molecular Weight	Predicted: 21 kD
Isotype	IgG
Form/Buffer	50% Glycerol/PBS with 1% BSA and 0.09% sodium azide

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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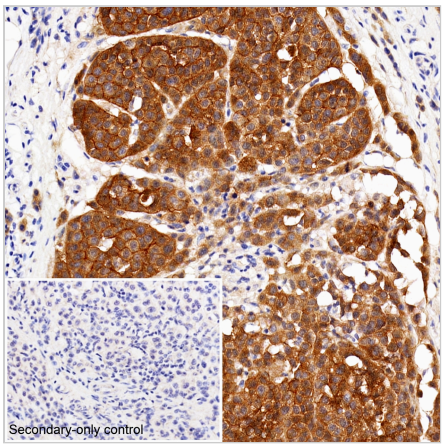

Immunohistochemical analysis of paraffin-embedded human skin melanoma tissue with Ras (mutated Q61R) Rabbit Monoclonal Antibody(SP174) at 1:100 dilution. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0); detection with HRP conjugated compact polymer system, DAB chromogen; counterstained with hematoxylin.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com