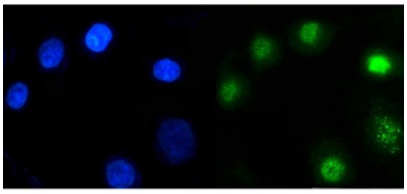
ARID1A Antibody / AT rich interactive domain 1A (R31797)

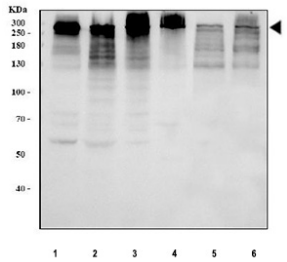
Catalog No.	Formulation	Size
R31797	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

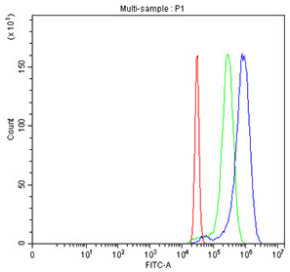
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O14497
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This ARID1A antibody is available for research use only.



Immunofluorescent staining of FFPE human A549 cells with ARID1A antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of 1) K562, 2) human ThP-1, 3) human Jurkat, 4) human SH-SY5Y, 5) mouse testis and 6) mouse thymus tissue lysate with ARID1A antibody. Predicted molecular weight ~242 kDa, commonly observed at 242-270 kDa.



Flow cytometry testing of fixed and permeabilized human HeLa cells with ARID1A antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= ARID1A antibody.

Description

ARID1A (AT-rich interactive domain-containing protein 1A) is a critical subunit of the SWI/SNF chromatin remodeling complex, which regulates gene transcription by altering chromatin structure and promoting access to DNA. ARID1A plays a key role in controlling cellular differentiation, proliferation, and DNA damage repair by facilitating transcriptional activation or repression in a context-dependent manner. It contains an ARID domain that enables DNA binding, contributing to its role as a scaffold within the SWI/SNF complex.

Loss-of-function mutations in ARID1A are frequently observed in a range of cancers, including ovarian clear cell carcinoma, endometrial carcinoma, gastric cancer, and hepatocellular carcinoma. ARID1A acts as a tumor suppressor, and its deficiency is associated with increased genomic instability, impaired DNA repair, and altered cell cycle control. Due to its strong link with oncogenesis and therapeutic response, ARID1A is a valuable biomarker and a potential target for precision cancer therapy.

The ARID1A antibody is an essential tool for studying chromatin remodeling, tumor suppression, and transcriptional regulation. It is widely used in immunohistochemistry, western blot, and immunofluorescence to assess ARID1A expression in both normal and cancerous tissues. With high specificity and reproducibility, the ARID1A antibody supports cancer diagnostics and research into epigenetic regulation. Incorporating the ARID1A antibody into your workflow provides critical insights into the molecular mechanisms driving chromatin dynamics and oncogenic transformation.

Application Notes

Optimal dilution of the ARID1A antibody should be determined by the researcher.

Immunogen

Amino acids KMWVDRYLAFTEEKAMGMTNLPAVGRKPLDLYR of human ARID1A were used as the immunogen for the ARID1A antibody.

Storage

After reconstitution, the ARID1A antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.