abcam

ab278702

Anti-NDRG1 (phospho T346) antibody [NDRG1T346-F5]

Recombinant | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human NDRG1 pT346. The exact immunogen used to generate this antibody is proprietary information. Database link Q92597
Clone number	NDRG1T346-F5
Purification technique	Affinity purification Protein A/G
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse

Dilution info	0.001-1 µg/mL
Notes	-

Species	Human
Dilution info	0.001-1 µg/mL
Notes	-

WB

Tested

Species	Mouse
Dilution info	0.05 µg/mL
Notes	-

Species	Human
Dilution info	0.05 µg/mL
Notes	-

Target data

See full target information NDRG1 pT346

Function	Stress-responsive protein involved in hormone responses, cell growth, and differentiation. Acts as a tumor suppressor in many cell types. Necessary but not sufficient for p53/TP53-mediated caspase activation and apoptosis. Has a role in cell trafficking, notably of the Schwann cell, and is necessary for the maintenance and development of the peripheral nerve myelin sheath. Required for vesicular recycling of CDH1 and TF. May also function in lipid trafficking. Protects cells from spindle disruption damage. Functions in p53/TP53-dependent mitotic spindle checkpoint. Regulates microtubule dynamics and maintains euploidy.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	NDRG1 or N-Myc downstream-regulated gene 1 also known as Cap43 Drg-1 and RTP is a protein that plays key roles in various cellular processes. It has a molecular mass of approximately 43 kDa. NDRG1 is ubiquitously expressed with higher levels in the brain heart liver and kidney. The protein also exhibits a significant presence in cytoplasm but can translocate to the nucleus depending on the cellular context and stimuli.
Biological function summary	NDRG1 functions in cell growth regulation stress response and apoptosis influencing differentiation and potentially acting as a tumor suppressor. It does not directly form part of a larger protein complex but interacts with other proteins to mediate its effects. Its involvement in cellular homeostasis places it as a significant player in maintaining normal cell physiology.
Pathways	NDRG1 is involved in the hypoxia and stress response pathways regulating cellular responses to low oxygen and oxidative stress. It interacts with HIF-1α a critical regulator of the cellular response to hypoxia and also modulates PTEN and p53 proteins that are important for cell cycle control and apoptosis. These pathways and interactions reflect its function in cellular regulatory networks.
Associated diseases and disorders	NDRG1 has associations with cancer and Charcot-Marie-Tooth disease type 4D. In cancer abnormal expression of NDRG1 has been linked to tumor progression and metastasis where it interacts with proteins like E-cadherin to influence cell adhesion and migration. In Charcot-Marie-Tooth disease mutations in the NDRG1 gene disrupt normal nerve function pointing to its importance in peripheral nervous system health.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

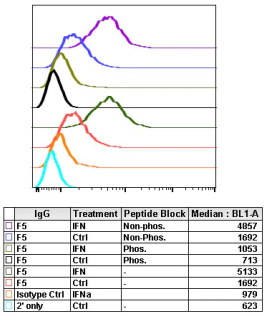
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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3 product images

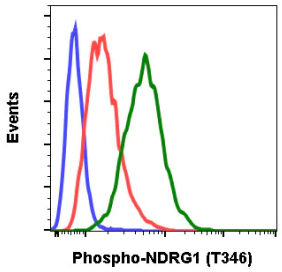


IgG	Treatment	Peptide Block	Median : BL1-A
F5	IFN	Non-phos.	4857
F5	Ctrl	Non-Phos.	1692
F5	IFN	Phos.	1053
F5	Ctrl	Phos.	713
F5	IFN	-	5133
F5	Ctrl	-	1692
Isotype Ctrl	IFNa		979
2° only	Ctrl	-	623

Flow Cytometry - Anti-NDRG1 (phospho T346) antibody [NDRG1T346-F5] (ab278702)

NDRG1 (phospho T346) Flow Cytometry staining using rabbit Anti-NDRG1 (phospho T346) antibody

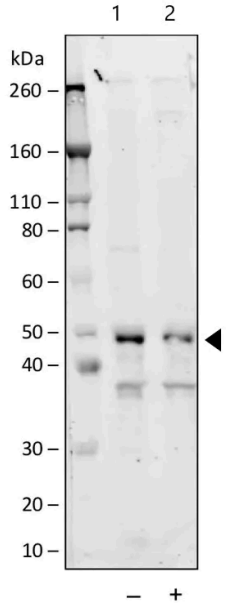
Peptide blocking flow cytometric analysis of THP1 cells secondary antibody only negative control (light blue) or untreated (orange) using isotype control antibody #2141 or untreated (red) or with IFNa + IL-4 + pervanadate (green) or untreated and blocked with phospho-peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using ab278702 at 0.05 µg/mL.



Flow Cytometry - Anti-NDRG1 (phospho T346) antibody [NDRG1T346-F5] (ab278702)

NDRG1 (phospho T346) Flow Cytometry staining using rabbit Anti-NDRG1 (phospho T346) antibody

Flow cytometric analysis of THP1 cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNa + IL-4 + pervanadate (green) using ab278702 at 0.05 µg/mL.



Western blot - Anti-NDRG1 (phospho T346) antibody [NDRG1T346-F5] (ab278702)

All lanes:
Western blot - Anti-NDRG1 (phospho T346) antibody [NDRG1T346-F5] (ab278702) at 0.05 µg/mL

Lane 1:
C2C12 (mouse myoblast cell line) whole cell lysate, untreated

Lane 2:
C2C12 (mouse myoblast cell line) whole cell lysate, treated with LY294002

Predicted band size: 43 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.