Phospho-NDRG1 (Thr346) (F5) rabbit mAb

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Catalog: #2106 **Store at:** -20ºC

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Flow Cytometry,WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

Format: Unconjugated

Cross Reactivity: Predicted to work with mouse, rat and other homologues.

Formulation: 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

Preparation: Protein A+G

Reactivity: Human,Mouse

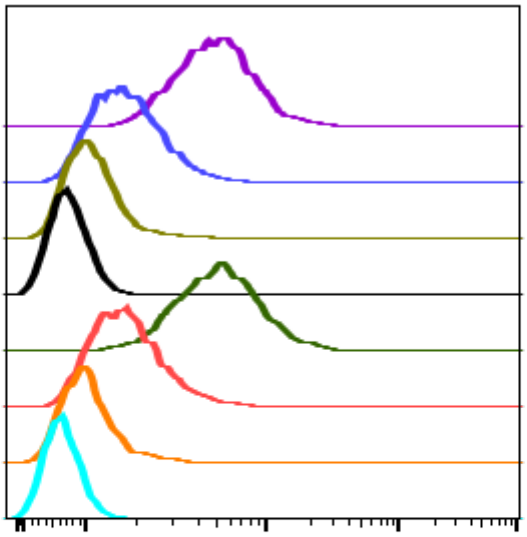
Recommended Usage: 1µg/mL – 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: A synthetic phospho-peptide corresponding to residues surrounding Thr346 of human phospho NDRG1

Description: N-Myc down-regulated gene 1 (NDRG1) has been reported to be a direct transcriptional target of p53. NDRG1 appears to play a necessary, but not sufficient, role in apoptosis, though its exact mechanism of action remains unknown. NDRG1 expression is elevated in non-small cell lung cancer cells, promoting cancer growth and reducing cytotoxicity to certain anti-cancer drugs. NDRG1 is also elevated in solid tumors and is recognized as a negative prognostic indicator in breast cancer. Elevated NDRG1 expression is correlated with disease recurrence and metastasis in breast cancer. NDRG1 is phosphorylated by Sgk1, which itself is activated by mTORC2. Phosphorylation of NDRG1 at Thr346 promotes cellular differentiation in adipocytes.

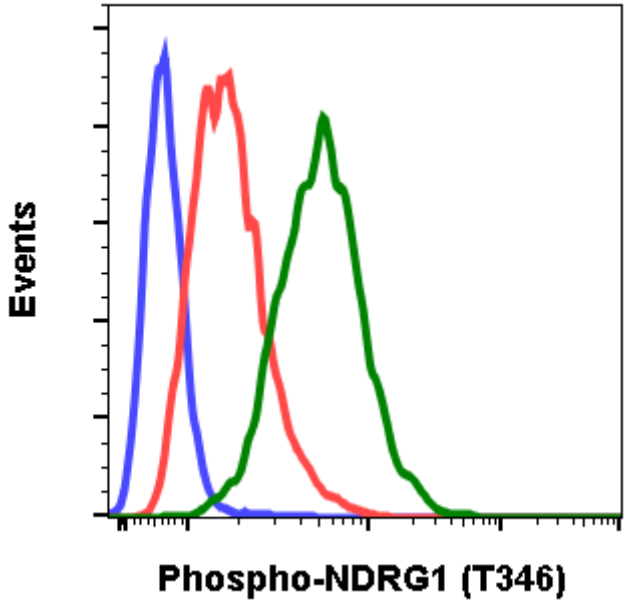
References:

Stein S, Thomas EK, Herzog B, Westfall MD, Rocheleau JV, Jackson II RS, Wang M, and Liang P. (2004) Journal of Biological Chemistry. 279:48930-48940.
Du A, Jiang Y, and Fan C. (2018) International Journal of Medical Sciences. 15:1502-1507.
Cai K, El-Merahbi R, Loeffler M, Mayer AE, and Sumara G. (2017) Scientific Reports 7:7191.
Sevinsky CJ, Khan F, Kokabee L, Darehshouri A, Maddipati KR, and Conklin DS. (2018) Breast Cancer Research. 20:55.

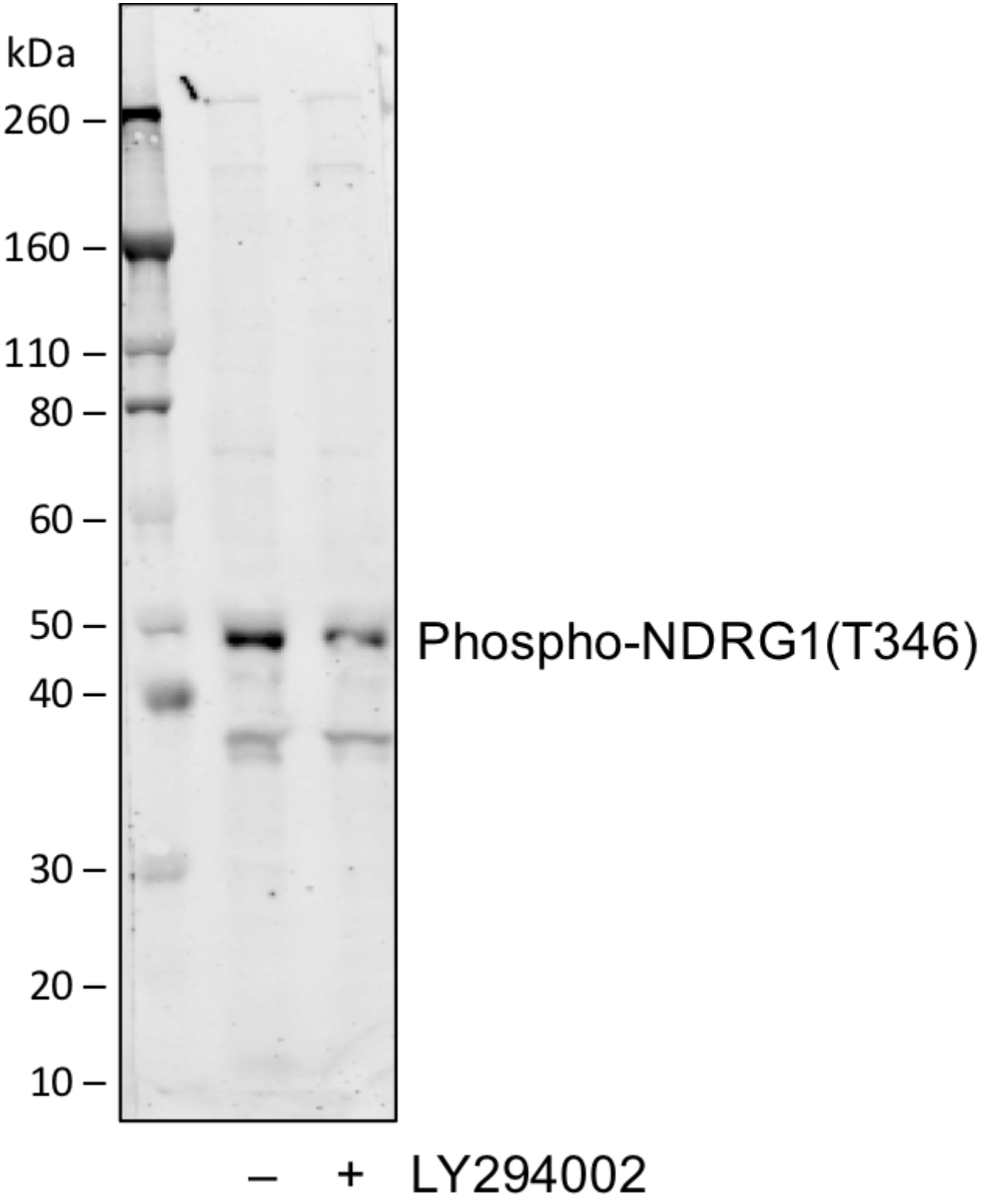


	IgG	Treatment	Peptide Block	Median : BL1-A
☐	F5	IFN	Non-phos.	4857
☐	F5	Ctrl	Non-Phos.	1692
☐	F5	IFN	Phos.	1053
☐	F5	Ctrl	Phos.	713
☐	F5	IFN	-	5133
☐	F5	Ctrl	-	1692
☐	Isotype Ctrl	IFNa		979
☐	2' only	Ctrl	-	623

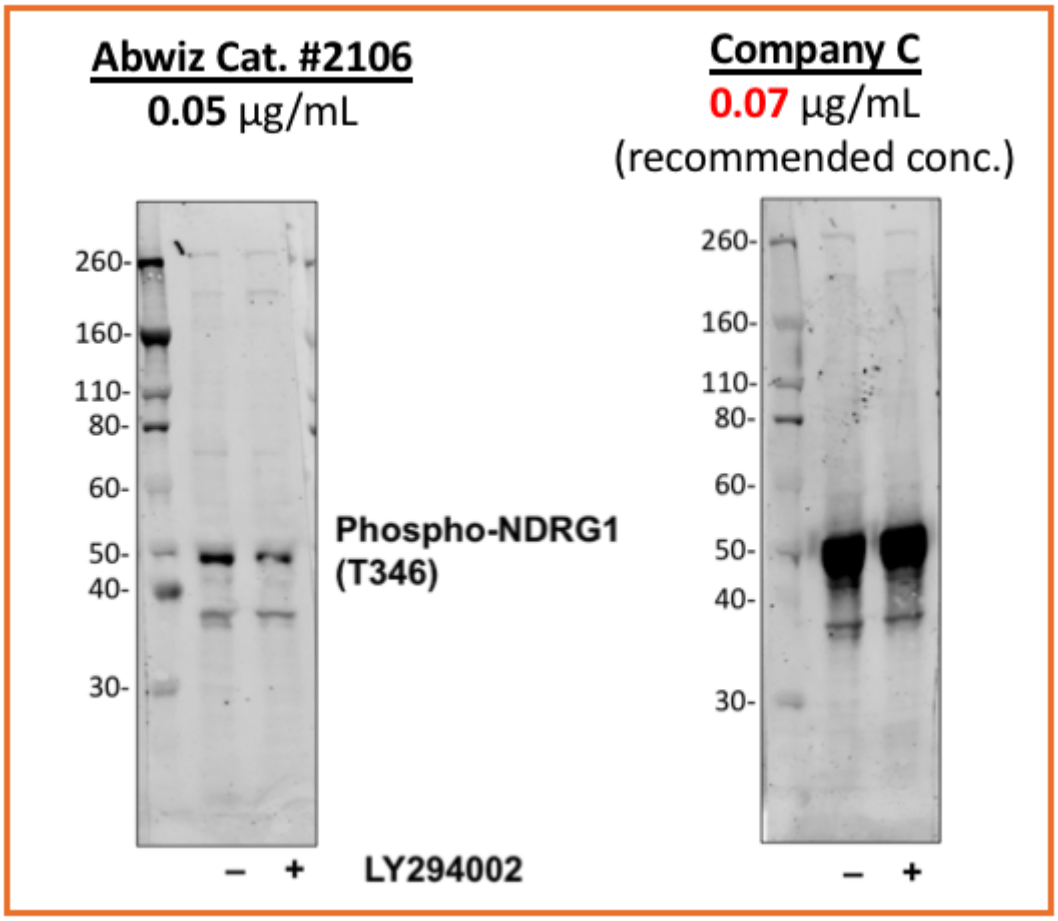
Peptide blocking flow cytometric analysis of THP1 cells secondary antibody only negative control (light blue) or untreated (orange) using isotype control antibody #2141 or untreated (red) or with IFNα + IL-4 + pervanadate (green) or untreated and blocked with phospho-peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-NDRG1 (Thr346) antibody NDRG1T346-F5 at 0.05 µg/mL. Cat. #2106.



Flow cytometric analysis of THP1 cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNα + IL-4 + pervanadate (green) using Phospho-NDRG1 (Thr346) antibody NDRG1T346-F5 at 0.05 µg/mL. Cat. #2106.



Western blot analysis of C2C12 cell extract untreated or treated with LY294002 using 0.05 ug/mL Phospho-NDRG1 (Thr346) antibody NDRG1T346-F5 Cat. #2106.



Western blot analysis of C2C12 cell extract untreated or treated with LY294002 using 0.05 µg/mL Phospho-NDRG1 (Thr346) antibody NDRG1T346-F5 Cat. #2106 or Company C antibody at 0.07 µg/mL (manufacturer's recommended concentration) developed using the same exposure.