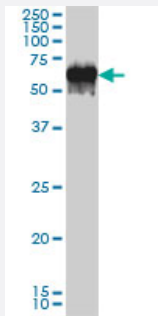


G3BP monoclonal antibody (M01), clone 2F3

Catalog # H00010146-M01

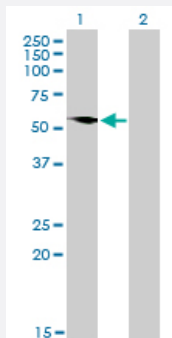
Size 100 ug

Applications



Western Blot (Cell lysate)

G3BP monoclonal antibody (M01), clone 2F3 Western Blot analysis of G3BP expression in A-431 (Cat # L015V1).

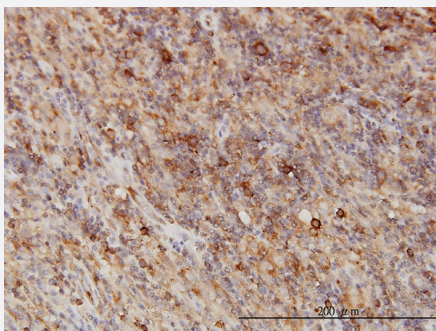


Western Blot (Transfected lysate)

Western Blot analysis of G3BP expression in transfected 293T cell line by G3BP monoclonal antibody (M01), clone 2F3.

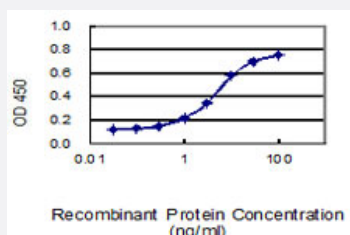
Lane 1: G3BP transfected lysate(52.2 KDa).

Lane 2: Non-transfected lysate.



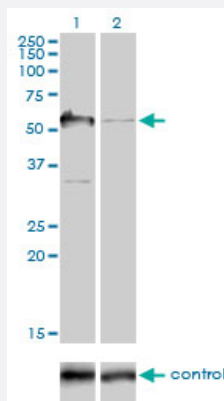
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to G3BP on formalin-fixed paraffin-embedded human lymphoma. [antibody concentration 1 ug/ml]



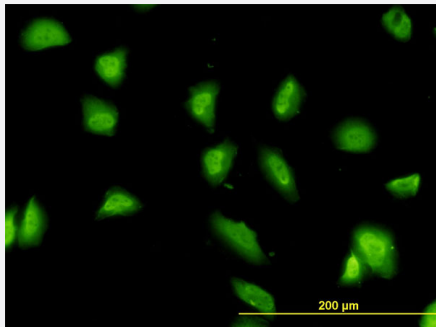
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged G3BP1 is 0.1 ng/ml as a capture antibody.



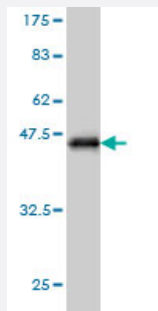
RNAi Knockdown (Antibody validated)

Western blot analysis of G3BP over-expressed 293 cell line, cotransfected with G3BP Validated Chimera RNAi (Cat # H00010146-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with G3BP monoclonal antibody (M01), clone 2F3 (Cat # H00010146-M01). GAPDH (36.1 kDa) used as specificity and loading control.



Immunofluorescence

Immunofluorescence of monoclonal antibody to G3BP on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (35.53 KDa) .

Specification

| | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Product Description | Mouse monoclonal antibody raised against a partial recombinant G3BP. |
| Immunogen | G3BP (AAH06997, 214 a.a. ~ 303 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. |
| Sequence | KPEPVLEETAPEDAQKSSSPAPADIAQTVQEDLRTFSWASVTSKNLPPSGAVPVTGIPPHVVKV PASQRPESKPESQIPPQRPQRDQRV |
| Host | Mouse |
| Reactivity | Human |
| Interspecies Antigen Sequence | Mouse (93); Rat (93) |

| | |
|-------------------------|----------------------------------------------------------------------------------------------------------|
| Isotype | IgG1 Kappa |
| Quality Control Testing | Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (35.53 KDa) . |
| Storage Buffer | In 1x PBS, pH 7.4 |
| Storage Instruction | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing. |

Applications

- Western Blot (Cell lysate)

G3BP monoclonal antibody (M01), clone 2F3 Western Blot analysis of G3BP expression in A-431 (Cat # L015V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of G3BP expression in transfected 293T cell line by G3BP monoclonal antibody (M01), clone 2F3.

Lane 1: G3BP transfected lysate(52.2 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to G3BP on formalin-fixed paraffin-embedded human lymphoma. [antibody concentration 1 ug/ml]

[Protocol Download](#)

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Detection limit for recombinant GST tagged G3BP1 is 0.1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- RNAi Knockdown (Antibody validated)

Western blot analysis of G3BP over-expressed 293 cell line, cotransfected with G3BP Validated Chimera RNAi (Cat # H00010146-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with G3BP monoclonal antibody (M01), clone 2F3 (Cat # H00010146-M01). GAPDH (36.1 kDa) used as specificity and loading control.

[Protocol Download](#)

- Immunofluorescence

Immunofluorescence of monoclonal antibody to G3BP on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — G3BP1

Entrez GeneID [10146](#)

GeneBank Accession# [BC006997](#)

Protein Accession# [AAH06997](#)

Gene Name G3BP1

Gene Alias G3BP, HDH-VIII, MGC111040

Gene Description GTPase activating protein (SH3 domain) binding protein 1

Omim ID [608431](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene encodes one of the DNA-unwinding enzymes which prefers partially unwound 3'-tailed s substrates and can also unwind partial RNA/DNA and RNA/RNA duplexes in an ATP-dependent fa shion. This enzyme is a member of the heterogeneous nuclear RNA-binding proteins and is also an element of the Ras signal transduction pathway. It binds specifically to the Ras-GTPase-activat ing protein by associating with its SH3 domain. Several alternatively spliced transcript variants of t his gene have been described, but the full-length nature of some of these variants has not been de termined. [provided by RefSeq]

Other Designations GAP binding protein|OTTHUMP00000160618|Ras-GTPase-activating protein SH3-domain-bindi ng protein|RasGAP-associated endoribonuclease G3BP

Publication Reference

- [The stress granule protein G3BP1 promotes pre-condensation of cGAS to allow rapid responses to DNA.](#)

Ming Zhao, Tian Xia, Jia-Qing Xing, Le-Hua Yin, Xiao-Wei Li, Jie Pan, Jia-Yu Liu, Li-Ming Sun, Miao Wang, Tingting Li, Jie Mao, Qiu-Ying Han, Wen Xue, Hong Cai, Kai Wang, Xin Xu, Teng Li, Kun He, Na Wang, Ai-Ling Li, Tao Zhou, Xue-Min Zhang, Wei-Hua Li, Tao Li.

EMBO reports 2022 Jan; 23(1):e53166.

Application: IF-Tr, Human, HeLa cells, U-937 cells

- [G3BP1 Inhibition Alleviates Intracellular Nucleic Acid-Induced Autoimmune Responses.](#)

Hong Cai, Xin Liu, Feng Zhang, Qiu-Ying Han, Zhao-Shan Liu, Wen Xue, Zeng-Lin Guo, Jiang-Man Zhao, Li-Ming Sun, Na Wang, Jie Mao, Kun He, Tian Xia, Yuan Chen, Liang Chen, Ai-Ling Li, Tao Zhou, Xue-Min Zhang, Wei-Hua Li, Tao Li.

Journal of immunology 2021 May; 206(10):2453.

Application: IF, IP, WB-Ce, WB-Tr, Human, Mouse, A-549, H1299, L929, MEFs, U937 cells

- [G3BP1 promotes DNA binding and activation of cGAS.](#)

Liu ZS, Cai H, Xue W, Wang M, Xia T, Li WJ, Xing JQ, Zhao M, Huang YJ, Chen S, Wu SM, Wang X, Liu X, Pang X, Zhang ZY, Li T, Dai J, Dong F, Xia Q, Li AL, Zhou T, Liu ZG, Zhang XM, Li T.

Nature Immunology 2019 Jan; 20(1):18.

Application: IF, WB, Human, Mouse, HeLa, Human primary macrophages, MEFs, U-937 cells

- [Preferential Binding of a stable G3BP Ribonucleoprotein Complex to Intron-retaining Transcripts in Mouse Brain and Modulation of their Expression in the Cerebellum.](#)

Martin S, Bellora N, Gonzalez-Vallinas J, Irimia M, Chebli K, DeToledo M, Raabe M, Eyraas E, Urlaub H, Blencowe BJ, Tazi J.

Journal of Neurochemistry 2016 Oct; 139(3):349.

Application: IP-WB, Mouse, Mouse brain, cerebellum

- [5-Fluorouracil affects assembly of stress granules based on RNA incorporation.](#)

Kaehler C, Isensee J, Hucho T, Lehrach H, Krobisch S.

Nucleic Acids Research 2014 Jun; 42(10):6436.

Application: IF, Human, HeLa cells

- [Deficiency of G3BP1, the stress granules assembly factor, results in abnormal synaptic plasticity and calcium homeostasis in neurons.](#)

Martin S, Zekri L, Metz A, Maurice T, Chebli K, Vignes M, Tazi J.

Journal of Neurochemistry 2013 Apr; 125(2):175.

Application: WB, IHC(G3BP1ab), IHC(PCP2ab), Mouse, Brain

- [Progressive loss of dopaminergic neurons induced by unilateral rotenone infusion into the medial forebrain bundle.](#)

Norazit A, Meedeniya AC, Nguyen MN, Mackay-Sim A.

Brain Research 2010 Nov; 1360:119.

Application: IHC, Rat, Rat brains