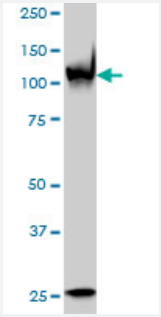
PARP1 monoclonal antibody (M01), clone 3G4

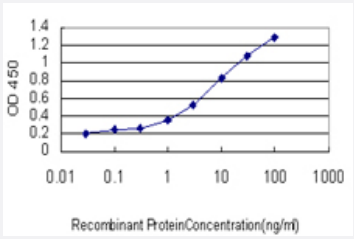
Catalog # H00000142-M01 Size 100 ug

Applications



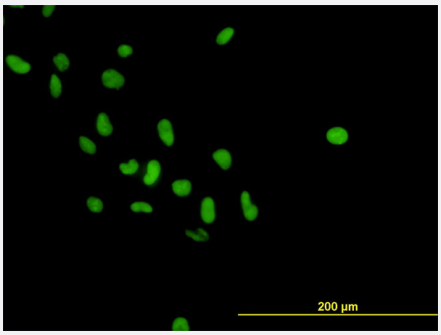
Western Blot (Cell lysate)

PARP1 monoclonal antibody (M01), clone 3G4 Western Blot analysis of PARP1 expression in Hela S3 NE (Cat # L013V3).



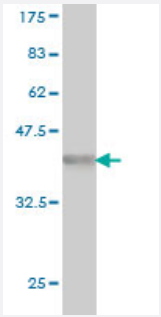
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged PARP1 is approximately 0.1ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to PARP1 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (36.63 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant PARP1.
Immunogen	PARP1 (AAH37545, 1 a.a. ~ 100 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MAESSDKLYRVEYAKSGRASCKKCSESIPKDSLRMAIMVQSPMFDGKVPHWYHFSCFWKVGHS IRHPDVEVDGFSELRWDDQQKVKKTAEAGGVTGKGQD
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (95); Rat (94)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.63 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)

  PARP1 monoclonal antibody (M01), clone 3G4 Western Blot analysis of PARP1 expression in Hela S3 NE (Cat # L013V3).

  Protocol Download

- Western Blot (Recombinant protein)

  Protocol Download

- Sandwich ELISA (Recombinant protein)

  Detection limit for recombinant GST tagged PARP1 is approximately 0.1ng/ml as a capture antibody.

  Protocol Download

- ELISA

- Immunofluorescence

  Immunofluorescence of monoclonal antibody to PARP1 on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — PARP1

Entrez GeneID	142
GeneBank Accession#	BC037545
Protein Accession#	AAH37545
Gene Name	PARP1
Gene Alias	ADPRT, ADPRT1, PARP, PARP-1, PPOL, pADPRT-1
Gene Description	poly (ADP-ribose) polymerase 1
Omim ID	173870
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a chromatin-associated enzyme, poly(ADP-ribosyl)transferase, which modifies various nuclear proteins by poly(ADP-ribosyl)ation. The modification is dependent on DNA and is involved in the regulation of various important cellular processes such as differentiation, proliferation, and tumor transformation and also in the regulation of the molecular events involved in the recovery of cell from DNA damage. In addition, this enzyme may be the site of mutation in Fanconi anemia, and may participate in the pathophysiology of type I diabetes. [provided by RefSeq
Other Designations	ADP-ribosyltransferase (NAD+; poly (ADP-ribose) polymerase)|ADP-ribosyltransferase NAD(+)|OTTHUMP00000035663|poly (ADP-ribose) polymerase family, member 1|poly(ADP-ribose) polymerase|poly(ADP-ribose) synthetase|poly(ADP-ribosyl)transferase

Publication Reference

- The poly(ADP-ribose) polymerase inhibitor olaparib induces up-regulation of death receptors in primary acute myeloid leukemia blasts by NF-κB activation.

  Faraoni I, Aloisio F, De Gabrieli A, Consalvo MI, Lavorgna S, Voso MT, Lo-Coco F, Graziani G.

  Cancer Letters 2018 Jun; 423:127.

  Application: WB, Human, Acute myeloid leukemia primary blasts

- BRCA1, PARP1 and γH2AX in Acute Myeloid Leukemia: Role as Biomarkers of Response to the PARP Inhibitor Olaparib.

  Faraoni I, Compagnone M, Lavorgna S, Angelini DF, Cencioni MT, Piras E, Panetta P, Ottone T, Dolci S, Venditti A, Graziani G, Lo-Coco F.

  Biochimica et Biophysica Acta 2015 Mar; 1852(3):462.

  Application: WB-Ce, Human, Hela, U937, OCI-AML2, OCI-AML3, HL-60, HL-60R, NB4, AML cells

- The ADP-ribosyltransferase PARP10/ARTD10 interacts with Proliferating Cell Nuclear Antigen (PCNA) and is required for DNA damage tolerance.

  Nicolae CM, Aho ER, Vlahos AH, Choe KN, De S, Karras GI, Moldovan GL.

  The Journal of Biological Chemistry 2014 May; 289(19):13627.

  Application: IP, Human, 293T cells

- Regulation of FANCD2 by the mTOR pathway contributes to the resistance of cancer cells to DNA double strand breaks.

  Shen C, Oswald D, Phelps D, Cam H, Pelloski CE, Pang Q, Houghton PJ.

  Cancer Research 2013 Jun; 73(11):3393.

  Application: WB-Ce, Human, Rh30 cells

- PARP1 promotes nucleotide excision repair through DDB2 stabilization and recruitment of ALC1.

  Pines A, Vrouwe MG, Marteijn JA, Typas D, Luijsterburg MS, Cansoy M, Hensbergen P, Deelder A, de Groot A, Matsumoto S, Sugasawa K, Thoma N, Vermeulen W, Vrieling H, Mullenders L.

  Journal of Cell Biology 2012 Oct; 199(2):235.

  Application: IP, WB-Ce, WB-Tr, Human, NHF, U-2 OS cells

- DDB2 promotes chromatin decondensation at UV-induced DNA damage.

  Luijsterburg MS, Lindh M, Acs K, Vrouwe MG, Pines A, van Attikum H, Mullenders LH, Dantuma NP.

  The Journal of Cell Biology 2012 Apr; 197(2):267.

  Application: WB-Tr, Human, U2OS cells

- The Metastasis Efficiency Modifier Ribosomal RNA Processing 1 Homolog B (RRP1B) Is a Chromatin-associated Factor.

  Crawford NP, Yang H, Mattaini KR, Hunter KW.

  The Journal of Biological Chemistry 2009 Oct; 284(42):28660.

  Application: WB-Tr, Human, HEK 293 cells

Pathway

- Base excision repair

Disease

- Acute Disease
- Adenocarcinoma
- Adenomyoma
- Alzheimer disease
- Arthritis
- Asthma
- Ataxia telangiectasia
- Brain Injuries
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Cardiovascular Diseases
- Chronic Disease
- Colon cancer
- Colonic Neoplasms
- Colorectal Neoplasms

- Diabetes Mellitus
- Diabetic Neuropathies
- Disease Progression
- DNA Damage
- Edema
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Glioma
- Glomerulonephritis
- Graft vs Host Disease
- Helicobacter Infections
- Kidney Failure
- Leukemia
- Lung Neoplasms
- Lupus Erythematosus
- Lupus Nephritis
- Lymphatic Metastasis
- Lymphoma
- Macular Degeneration
- Malignant melanoma
- Melanoma
- Meniere Disease
- Meningeal Neoplasms
- Meningioma
- Meningococcal Infections

- Micronuclei
- Multiple Sclerosis
- Neoplasms
- Neuroma
- Neutropenia
- Otitis Media
- Ovarian cancer
- Ovarian Neoplasms
- Papillomavirus Infections
- Parkinson disease
- Precancerous Conditions
- Prostate cancer
- Prostatic Neoplasms
- Pulmonary Disease
- Rectal Neoplasms
- Recurrence
- Renal Insufficiency
- Skin Neoplasms
- Stomach Neoplasms
- Thyroid Neoplasms
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Werner syndrome