# .-online.com antibodies

## Datasheet for ABIN968891 anti-OPA1 antibody (AA 708-830)

2 Images

3 Publications



#### Overview

Quantity:	50 µg
Target:	OPA1
Binding Specificity:	AA 708-830
Reactivity:	Human, Mouse, Rat, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This OPA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

## Product Details

Immunogen:	Human OPA1 aa. 708-830
Clone:	18-OPA1
Isotype:	lgG1
Cross-Reactivity:	Dog (Canine), Rat (Rattus), Mouse (Murine), Chicken
Characteristics:	<ol> <li>Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li> <li>Please refer to us for technical protocols.</li> <li>Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li> <li>Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li> </ol>
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/4 | Product datasheet for ABIN968891 | 02/13/2024 | Copyright antibodies-online. All rights reserved.

## Product Details

chromatography.

## Target Details

Target:	OPA1
Alternative Name:	OPA1 (OPA1 Products)
Background:	Three major GTP-binding protein families include trimeric and low molecular weight G-proteins, as well as a family of large proteins homologous to dynamin. The dynamin family contains proteins with diverse structure and function, but highly homologous N-terminal GTPase domains. A subgroup of the dynamin G-protein-binding family includes the mitochondrial proteins Drp1/Dnm1, Mgm1, and OPA1. The latter protein is mutated in dominant optic atrophy, a disease that involves loss of visual acuity and atrophy of the optic nerve. OPA1 is expressed in heart, brain, liver, and kidney. The sequence of OPA1 includes an N-terminal region that contains a mitochondrial targeting domain and three GTP-binding motifs. The overexpression of OPA1 in Cos-7 cells shows co-localization with cytochrome c in mitochondria, and leads to alterations in mitochondrial morphology from a characteristic tubuluar shape to a vesicular pattern. Thus, OPA1 may have roles in mitochondrial biogenesis that are critical for normal cell function. This antibody is routinely tested by western blot analysis.
Molecular Weight:	80-100 kDa
Pathways: Application Details	Tube Formation
Comment:	Related Products: ABIN968586, ABIN967389
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/4 | Product datasheet for ABIN968891 | 02/13/2024 | Copyright antibodies-online. All rights reserved.

Handling	
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.
Publications	
Product cited in:	Misaka, Miyashita, Kubo: "Primary structure of a dynamin-related mouse mitochondrial GTPase
	and its distribution in brain, subcellular localization, and effect on mitochondrial morphology."
	in: The Journal of biological chemistry, Vol. 277, Issue 18, pp. 15834-42, (2002) (PubMed).
	Alexander, Votruba, Pesch, Thiselton, Mayer, Moore, Rodriguez, Kellner, Leo-Kottler, Auburger,
	Bhattacharya, Wissinger: "OPA1, encoding a dynamin-related GTPase, is mutated in autosomal
	dominant optic atrophy linked to chromosome 3q28." in: Nature genetics, Vol. 26, Issue 2, pp.
	211-5, (2000) (PubMed).
	Delettre, Lenaers, Griffoin, Gigarel, Lorenzo, Belenguer, Pelloquin, Grosgeorge, Turc-Carel, Perret,
	Astarie-Dequeker, Lasquellec, Arnaud, Ducommun, Kaplan, Hamel: "Nuclear gene OPA1,
	encoding a mitochondrial dynamin-related protein, is mutated in dominant optic atrophy." in:
	Nature genetics, Vol. 26, Issue 2, pp. 207-10, (2000) (PubMed).

### Images



### Western Blotting

**Image 1.** Western blot analysis of OPA1 on a K-562 cell lysate (Human bone marrow myelogenous leukemia, ATCC CCL-243). Lane 1: 1:500, lane 2: 1000, lane 3: 1: 2000 dilution of the mouse anti- OPA1 antibody.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 3/4 | Product datasheet for ABIN968891 | 02/13/2024 | Copyright antibodies-online. All rights reserved.



#### Immunofluorescence

**Image 2.** Immunofluorescence staining of COS-7 cells (African Green Monkey SV40 transformed kidney cells, ATCC CRL-1651).

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 4/4 | Product datasheet for ABIN968891 | 02/13/2024 | Copyright antibodies-online. All rights reserved.