Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 200-901-BJ4

# GAPDH Antibody

## Overview

| | |
|---|---|
| **Description:** | Anti-GAPDH (CHICKEN) Antibody - 200-901-BJ4 |
| **Item No.:** | 200-901-BJ4 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IHC, WB |
| **Reactivity:** | Human, Mouse, Rat |
| **Host Species:** | Chicken |

## Product Details

| | |
|---|---|
| **Background:** | Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD), an important energy-yielding step in carbohydrate metabolism. Recent evidence suggests that it also is involved in a number of cellular processes such as membrane fusion, phosphotransferase activity, DNA replication and repair, and nuclear RNA export. GAPDH has also been implicated in playing a role in different pathologies such as cancer progression, apoptosis, and neuronal diseases such as Alzheimer's and Huntington's disease. GAPDH is constitutively expressed at high levels in almost all tissues and cell lines making it ideal for use as a loading control marker in immunoblots. |
| **Synonyms:** | GAPDH Antibody, G3PD, GAPD, HEL-S-162eP, CDABP0047, OK/SW-cl.12, Glyceraldehyde-3-phosphate dehydrogenase, Peptidyl-cysteine S-nitrosylase GAPDH, GAPDH |
| **Host Species:** | Chicken |
| **Clonality:** | Polyclonal |
| **Format:** | IgY |

## Target Details

| | |
|---|---|
| **Gene Name:** | GAPDH |
| **Reactivity:** | Human, Mouse, Rat |
| **Immunogen Type:** | Conjugated Peptide |

| | |
|---|---|
| **Immunogen:** | Anti-GAPDH antibody was prepared from chicken egg fractions produced by repeated immunizations with a 16 amino acid synthetic peptide from near the C-terminus of human GAPDH. |
| **Purity/Specificity:** | Anti-GAPDH Antibody is an IgY fraction that has been affinity purified by immunoaffinity purification. Cross reactivity with GAPDH from other sources has not been determined. |
| **Relevant Links:** | • UniProtKB - P04406<br>• GeneID - 2597<br>• NCBI - NP_001243728.1 |

## Application Details

| | |
|---|---|
| **Tested Applications:** | ELISA, IHC, WB |
| **Application Note:** | Anti-GAPDH Antibody has been tested for use in ELISA, immunocytochemistry, and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 36 kDa in Western Blots of specific cell lysates and tissues. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:10,000 |
| **WB:** | 1 µg/mL |

## Formulation

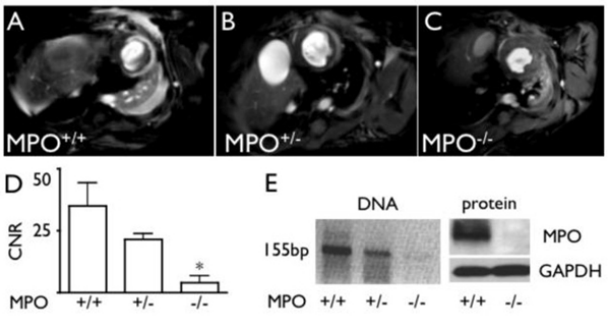
| | |
|---|---|
| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.02% (w/v) Sodium Azide |
| **Stabilizer:** | None |

## Shipping & Handling

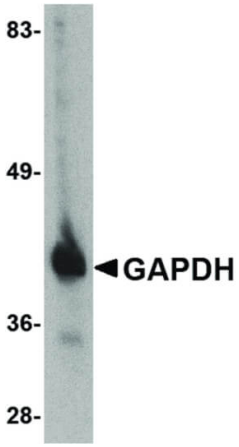
| | |
|---|---|
| **Shipping Condition:** | Dry Ice |
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images




**Western Blot**
A: The infarct of a wild type mouse 2 hours after injection of MPO-Gd is brightly enhanced. Imaging was performed on day 2 after MI in all mice.
B: Intermediate-level enhancement is observed in heterozygous MPO deficient mice, corresponding to 50% enzyme activity levels.
C: In homozygous MPO deficient mice, enhancement after injection of MPO-Gd is significantly reduced, establishing the specificity of MPO-Gd.
D: Contrast-to-noise ratio in respective genotypes show significantly diminished enhancement in MPO deficient mice. * p<0.05.
E: PCR and Western blotting of representative genotypes shown in 2A-C. Fig 2. PMID: 18268141




**Western Blot**
Western Blot of GAPDH antibody. Lane 1: HeLa cell lysate with GAPDH antibody at 1 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase chicken secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 36 kDa, 40 kDa for GAPDH. Other band(s): GAPDH splice variants and isoforms.

## References


- Matthias Nahrendorf et al. Activatable magnetic resonance imaging agent reports myeloperoxidase activity in healing infarcts and noninvasively detects the antiinflammatory effects of atorvastatin on ischemia-reperfusion injury. *Circulation.* (2008)


## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.