# PBRM1 Antibody / Polybromo 1 (FY13190)

| Catalog No. | Formulation | Size |
|---|---|---|
| FY13190 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

## Bulk quote request

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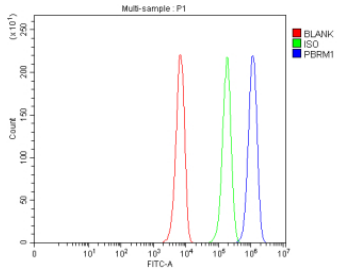
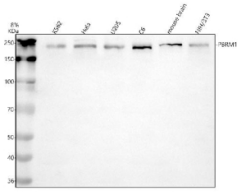
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Lyophilized |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q86U86 |
| **Applications** | Western Blot : 0.25-0.5ug/ml<br>Flow Cytometry : 1-3ug/million cells<br>ELISA : 0.1-0.5ug/ml |
| **Limitations** | This PBRM1 antibody is available for research use only. |




Flow Cytometry analysis of K562 cells using anti-PBRM1 antibody. Overlay histogram showing K562 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PBRM1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of PBRM1 using anti-PBRM1 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human K562 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human U2OS whole cell lysates, Lane 4: rat C6 whole cell lysates, Lane 5: mouse brain tissue lysates, Lane 6: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PBRM1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. Western blot detection of PBRM1 shows a single band migrating at ~240 kDa. Despite a calculated mass of ~193 kDa, PBRM1 commonly exhibits reduced electrophoretic mobility on SDS-PAGE, consistent with chromatin remodeler subunits and post-translationally modified forms.

## Description

PBRM1 antibody detects Polybromo-1, a chromatin-remodeling factor and tumor suppressor that regulates gene expression through nucleosome repositioning. The UniProt recommended name is Polybromo-1 (PBRM1). This large nuclear protein functions as a subunit of the PBAF (polybromo-associated BRG1-associated factor) subtype of the SWI/SNF chromatin-remodeling complex, which modulates chromatin accessibility to control transcription, differentiation, and DNA repair.

Functionally, PBRM1 antibody identifies a 1,709-amino-acid protein containing six bromodomains, two BAH domains, and one HMG-box domain that recognize acetylated lysine residues on histones. These interactions recruit the PBAF complex to specific promoters, enabling ATP-dependent chromatin remodeling and transcriptional regulation. PBRM1 supports cellular homeostasis by maintaining chromatin architecture and transcriptional fidelity.

The PBRM1 gene is located on chromosome 3p21.1 and is highly expressed in kidney, liver, and lung tissues. It acts as a critical tumor suppressor by opposing oncogenic transcriptional programs, particularly in renal and hepatic cells.

Pathologically, PBRM1 mutations are frequently observed in clear cell renal cell carcinoma (ccRCC), intrahepatic cholangiocarcinoma, and other malignancies. Loss of PBRM1 disrupts chromatin remodeling, leading to transcriptional dysregulation and uncontrolled cell proliferation. Research using PBRM1 antibody supports studies in epigenetics, tumor suppression, and chromatin dynamics.

PBRM1 antibody is validated for western blotting, immunoprecipitation, and immunohistochemistry to detect chromatin-remodeling complex components. NSJ Bioreagents provides PBRM1 antibody reagents optimized for transcriptional regulation, chromatin accessibility, and cancer epigenomics research.

Structurally, Polybromo-1 features multiple bromodomains that bind acetylated histones and a modular organization that promotes assembly with PBAF complex members such as BRD7 and SMARCA4. This antibody facilitates exploration of PBRM1's role in chromatin organization and gene silencing.

## Application Notes

Optimal dilution of the PBRM1 antibody should be determined by the researcher.

## Immunogen

E.coli-derived human PBRM1 recombinant protein (Position: D45-R1647) was used as the immunogen for the PBRM1 antibody.

## Storage

After reconstitution, the PBRM1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.