

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Brg1 in direct ELISAs and Western blots.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2135A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Brg1 Gln673-Asn774 Accession # P51532
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

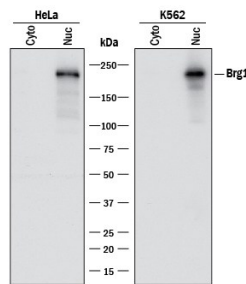
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunohistochemistry</b>	1-25 µg/mL	See Below
<b>Knockout Validated</b>	Brg1 is specifically detected in HEK293T human embryonic kidney parental cell line but is not detectable in Brg1 knockout HEK293T cell line.	

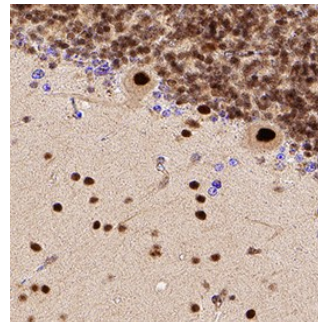
**DATA**

**Western Blot**



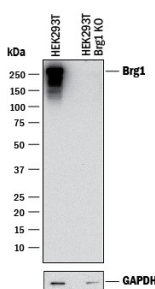
**Detection of Human Brg1 by Western Blot.** Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and K562 human chronic myelogenous leukemia cell line. Gels were loaded with 30 µg of cytoplasmic (Cyto) and 15 µg of nuclear extracts (Nuc). PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human Brg1 Monoclonal Antibody (Catalog # MAB5738) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Brg1 at approximately 220 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunohistochemistry**



**Brg1 in Human Brain.** Brg1 was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Rabbit Anti-Human Brg1 Monoclonal Antibody (Catalog # MAB5738) at 1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal nuclei. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

**Knockout Validated**



**Western Blot Shows Human Brg1 Specificity by Using Knockout Cell Line.** Western blot shows lysates of HEK293T human embryonic kidney parental cell line and Brg1 knockout HEK293T cell line (KO). PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human Brg1 Monoclonal Antibody (Catalog # MAB5738) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Brg1 at approximately 250 kDa (as indicated) in the parental HEK293T cell line, but is not detectable in knockout HEK293T cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Brg1 (Brm/Swi2-related gene 1), also known as SMARCA4 (Swi/SNF-related matrix-associated actin-dependent regulator of chromatin, subfamily A, member 4), SNF2L4 and SNF2 $\beta$ , is a 205 kDa member of the SNF2 helicase family of molecules. It is a ubiquitously expressed, nuclear-localized chromatin remodeling ATPase that, depending upon its associated complex, may both facilitate and inhibit gene transcription. Human SMARCA4 is 1647 amino acids (aa) in length, and contains an HSA domain (aa 460-532), one BRK region (aa 610-654), six potential phosphoserine sites between aa 610-662, a DEXDc domain that unwinds RNA and DNA (aa 774-913), one Bromo domain (aa 1477-1547) and eight potential phosphoserine sites between aa 1570-1644.