

### Anti-NG2 antibody [LHM 2] ab20156

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#### Overview

<b>Product name</b>	Anti-NG2 antibody [LHM 2]
<b>Description</b>	Mouse monoclonal [LHM 2] to NG2
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, IP, IHC-FoFr, Flow Cyt, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus corresponding to Human NG2. a 375P cell crude extract
<b>General notes</b>	<p>The LHM2 antibody is a very good marker for melanoma (&gt;90% stained). LHM2 also stains basal cell carcinomas and subpopulation of basal keratinocytes. LHM2 can be used as a diagnostic panel for immunopathology of malignant melanoma and potential candidates for immunoimaging and immunotherapy of disseminated melanoma. The originators of this antibody report that the MCSP is a cell surface marker specific for epidermal stem cells (J. Invest. Dermatol. in press). Potential applications of the LHM2 antibody include use for separation/isolation of epidermal stem cells, detection of stem cells in skin biopsies or epithelial cell cultures and optimisation of culture conditions to retain epidermal stem cell population in in vitro cultures.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.02% Sodium azide Constituent: 99.98% PBS
<b>Purity</b>	Protein A/G purified
<b>Clonality</b>	Monoclonal

Clone number	LHM 2
Myeloma	NS0
Isotype	IgG1
Light chain type	kappa

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab20156 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 21970342
Flow Cyt		Use at an assay dependent concentration. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration.

## Target

<b>Function</b>	Proteoglycan playing a role in cell proliferation and migration which stimulates endothelial cells motility during microvascular morphogenesis. May also inhibit neurite outgrowth and growth cone collapse during axon regeneration. Cell surface receptor for collagen alpha 2(VI) which may confer cells ability to migrate on that substrate. Binds through its extracellular N-terminus growth factors, extracellular matrix proteases modulating their activity. May regulate MMP16-dependent degradation and invasion of type I collagen participating in melanoma cells invasion properties. May modulate the plasminogen system by enhancing plasminogen activation and inhibiting angiostatin. Functions also as a signal transducing protein by binding through its cytoplasmic C-terminus scaffolding and signaling proteins. May promote retraction fiber formation and cell polarization through Rho GTPase activation. May stimulate alpha-4, beta-1 integrin-mediated adhesion and spreading by recruiting and activating a signaling cascade through CDC42, ACK1 and BCAR1. May activate FAK and ERK1/ERK2 signaling cascades.
<b>Tissue specificity</b>	Detected only in malignant melanoma cells.
<b>Sequence similarities</b>	Contains 15 CSPG (NG2) repeats. Contains 2 laminin G-like domains.
<b>Post-translational modifications</b>	O-glycosylated; contains glycosaminoglycan chondroitin sulfate which are required for proper localization and function in stress fiber formation (By similarity). Involved in interaction with MMP16 and ITGA4. Phosphorylation by PRKCA regulates its subcellular location and function in cell motility.
<b>Cellular localization</b>	Apical cell membrane. Cell projection > lamellipodium membrane. Localized at the apical plasma membrane it relocates to the lamellipodia of astrocytoma upon phosphorylation by PRKCA.

Localizes to the retraction fibers. Localizes to the plasma membrane of oligodendrocytes.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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