

## Datasheet: MCA4870Z

<b>Description:</b>	MOUSE ANTI HUMAN RUNX2:Preservative Free
<b>Specificity:</b>	RUNX2
<b>Format:</b>	Preservative Free
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	4D5
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Paraffin	▪			0.1 - 10 ug/ml
Western Blotting	▪			0.1 - 10 ug/ml
Immunofluorescence	▪			0.1 - 10 ug/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Rat <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Approx. Protein Concentrations</b>	Ig concentration 0.5 mg/ml
<b>Immunogen</b>	Recombinant protein corresponding to aa 251-351 of human RUNX2
<b>External Database Links</b>	<b>UniProt:</b> <a href="http://www.uniprot.org/entry/Q13950">Q13950</a> <a href="#">Related reagents</a>

**Entrez Gene:**[860](#) [RUNX2](#) [Related reagents](#)

<b>Synonyms</b>	AML3, CBFA1, OSF2, PEBP2A
<b>Fusion Partners</b>	Spleen cells from BALB/c mice were fused with cells from the Sp2/0 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human RUNX2 antibody, clone 4D5</b> recognizes human Runt-related transcription factor 2, also known as RUNX2, Acute myeloid leukemia 3 protein, Core-binding factor subunit alpha-1, Oncogene AML-3, Osteoblast-specific transcription factor 2, Polyomavirus enhancer-binding protein 2 alpha A subunit, SL3-3 enhancer factor 1 alpha A subunit or SL3/AKV core-binding factor alpha A subunit. Runx2 is a 521 amino acid ~60 kDa transcription factor involved in osteoblastic differentiation and skeletal morphogenesis.</p> <p>Mutations in the RUNX2 gene can lead to the development of Cleidocranial dysplasia (<a href="#">CLCD</a>) a skeletal disorder characterized by persistently open skull sutures, wormian bones, extra teeth and short stature (<a href="#">Lee et al. 1997</a>). Mutations on the RUNX2 gene can also lead to presentation of Metaphyseal dysplasia with maxillary hypoplasia with or without brachydactyly (<a href="#">MDMHB</a>) a developmental disease with metaphyseal flaring of long bones, variable brachydactyly, and dystrophic teeth (<a href="#">Moffatt et al 2013</a>).</p>
<b>Storage</b>	<p>Store at -20°C only.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Shelf Life</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation available at:  Material Safety Datasheet Documentation #10162 available at:  <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf</a></p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@549</a> , <a href="#">DyLight@649</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight@800</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>

Human Anti Mouse IgG2a (HCA037...) [FITC](#), [HRP](#)

## Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

'M309276:170823'

**Printed on 18 Jan 2018**

---

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)