**Product datasheet**

**Anti-Integrin beta 3 antibody [EPR2342] ab119992**

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Integrin beta 3 antibody [EPR2342]</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR2342] to Integrin beta 3</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>
| Tested applications        | **Suitable for**: WB, IP, Flow Cyt  
**Unsuitable for**: ICC or IHC-P |
| Species reactivity         | Reacts with: Mouse, Rat, Human         |
| Immunogen                  | Synthetic peptide within Human Integrin beta 3 aa 750-850. The exact sequence is proprietary. |
| General notes              | A trial size is available to purchase for this antibody. |

Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMab® patents](#).

This product is a recombinant rabbit monoclonal antibody.

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.</td>
</tr>
</tbody>
</table>
| Storage buffer | pH: 7.20  
Preservative: 0.05% Sodium azide  
Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant |
| Purity        | Tissue culture supernatant |
| Clonality     | Monoclonal           |
| Clone number  | EPR2342              |
| Isotype       | IgG                  |

**Applications**

10 References  3 Images
Application notes

Is unsuitable for ICC or IHC-P.

Target

Function
Integrin alpha-V/beta-3 is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIb/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha-IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surface. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Tissue specificity
Isoform beta-3A and isoform beta-3C are widely expressed. Isoform beta-3A is specifically expressed in osteoblast cells; isoform beta-3C is specifically expressed in prostate and testis.

Involvement in disease
Defects in ITGB3 are a cause of Glanzmann thrombasthenia (GT) [MIM:273800]; also known as thrombasthenia of Glanzmann and Naegeli. GT is the most common inherited disease of platelets. It is an autosomal recessive disorder characterized by mucocutaneous bleeding of mild-to-moderate severity and the inability of this integrin to recognize macromolecular or synthetic peptide ligands. GT has been classified clinically into types I and II. In type I, platelets show absence of the glycoprotein IIb/beta-3 complexes at their surface and lack fibrinogen and clot retraction capability. In type II, the platelets express the glycoprotein IIb/beta-3 complex at reduced levels (5-20% controls), have detectable amounts of fibrinogen, and have low or moderate clot retraction capability. The platelets of GT 'variants' have normal or near normal (60-100%) expression of dysfunctional receptors.

Sequence similarities
Belongs to the integrin beta chain family. Contains 1 VWFA domain.

Post-translational modifications
Phosphorylated on tyrosine residues in response to thrombin-induced platelet aggregation. Probably involved in outside-in signaling. A peptide (AA 740-762) is capable of binding GRB2 only when both Tyr-773 and Tyr-785 are phosphorylated. Phosphorylation of Thr-779 inhibits SHC binding.

Cellular localization
Membrane.

Images
Western blot - Anti-Integrin beta 3 antibody [EPR2342] (ab119992)

All lanes: Anti-Integrin beta 3 antibody [EPR2342] (ab119992) at 1/500 dilution

Lane 1: U-87MG (Human glioblastoma-astrocytoma epithelial cell) whole cell lysates with 5% NFDM/TBST
Lane 2: HEL (Human Erythroleukemia erythroblast) whole cell lysates with 5% NFDM/TBST
Lane 3: LnCaP (Human prostate carcinoma epithelial cell) whole cell lysates with 5% NFDM/TBST
Lane 4: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates with 5% NFDM/TBST
Lane 5: HUVEC (Human umbilical vein endothelial cell) whole cell lysates with 5% NFDM/TBST
Lane 6: PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysates with 5% NFDM/TBST
Lane 7: C2C12 (Mouse myoblasts myoblast) whole cell lysates with 5% NFDM/TBST
Lane 8: Raw264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates with 5% NFDM/TBST

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 87 kDa
Observed band size: 110 kDa

why is the actual band size different from the predicted?

LnCaP, HeLa and PC-3 have low expression controls.

Exposure:
1,2 lane: 10 s;
3-8 lanes: 3 min
Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HUVEC (Human umbilical vein endothelial cell) cell line labeling Integrin beta 3 with ab119992 at 1/20 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.

**All lanes**: Anti-Integrin beta 3 antibody [EPR2342] (ab119992) at 1/1000 dilution

- **Lane 1**: TPA treated THP1 cell lysate
- **Lane 2**: HUVEC cell lysate
- **Lane 3**: Human spleen lysate
- **Lane 4**: Human plasma lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size**: 87 kDa
**Observed band size**: 110 kDa

*why is the actual band size different from the predicted?*

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**Please note**: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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