

## Product Datasheet

### IL-7 Antibody (orb2635127)

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog Number</b>      | orb2635127                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Category</b>            | Antibodies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>         | <p>Interleukin-7 (IL-7) was originally described as a factor capable of inducing in vitro proliferation of pre-B cells from marrow cultures. The IL-7 gene encodes a protein 177 amino acids in length. IL-7 exerts its biological function through the IL-7 receptor which is expressed on pre-B cells, thymocytes and bone marrow-derived macrophages. The IL-7 receptor is composed of an IL-7 receptor specific chain and the IL-2 receptor chain common to the IL-2, IL-4, IL-7, IL-9 and IL-15 receptors. IL-7 stimulation leads to the activation of Janus tyrosine kinase family members JAK1 and JAK3. Other studies have shown that in T cells, the IL-7 receptor-specific chain associates with the Src kinases family Lck and Fyn. IL-7 induces phosphorylation of Insulin receptor substrate-1 (IRS-1) and Insulin receptor substrate-2 (IRS-2), originally called 4PS.</p> |
| <b>Clonality</b>           | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species/Host</b>        | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Isotype</b>             | Mouse IgG1, kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Conjugation</b>         | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reactivity</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Immunogen</b>           | A portion of amino acids 27-177 was used as the immunogen for the IL-7 antibody.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>UniProt ID</b>          | <b>P13232</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Tested applications</b> | FACS, IF, IHC-P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Dilution range</b>      | Flow cytometry: 1-2ug/million cells,Immunofluorescence: 1-2ug/ml,Immunohistochemistry (FFPE): 1-2ug/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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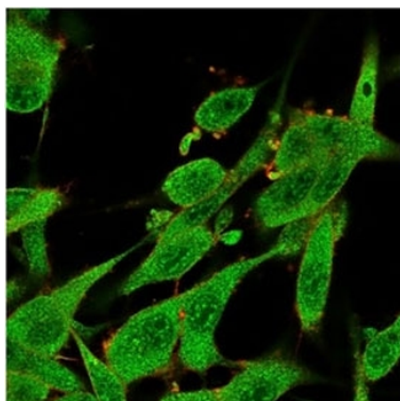
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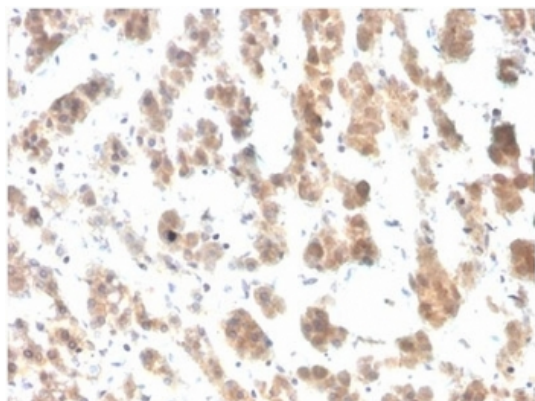
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|                          |                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application notes</b> | Optimal dilution of the IL-7 antibody should be determined by the researcher.                                                           |
| <b>Antibody Type</b>     | Primary Antibody                                                                                                                        |
| <b>Clone Number</b>      | IL7/4012                                                                                                                                |
| <b>Formula</b>           | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide                                                                 |
| <b>Storage</b>           | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| <b>Note</b>              | For research use only                                                                                                                   |



Immunofluorescent staining of PFA-fixed human U-87 MG cells using IL-7 antibody (green, clone IL7/4012) and phalloidin (red).



IHC staining of FFPE human adrenal gland tissue with IL-7 antibody (clone IL7/4012). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

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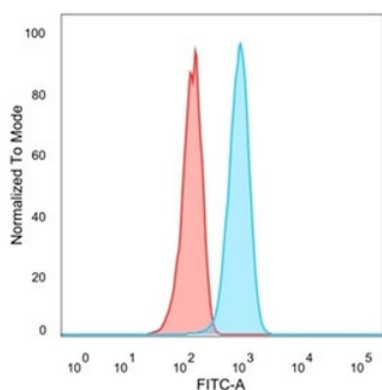
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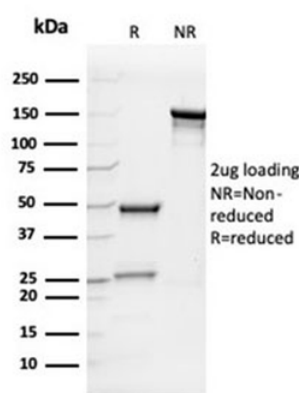
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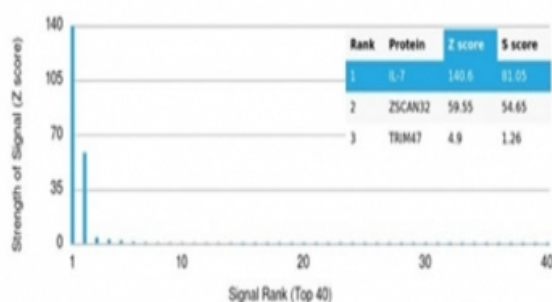


FACS staining of PFA-fixed human U-87 MG cells with IL-7 antibody (blue, clone IL7/4012), and isotype control (red).



SDS-PAGE analysis of purified, BSA-free IL-7 antibody (clone IL7/4012) as confirmation of integrity and purity.

#### Human Protein Microarray Specificity Validation



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using IL-7 antibody (clone IL7/4012). These results demonstrate the foremost specificity of the IL7/4012 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

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