

## ARG53895 anti-CD71 / Transferrin Receptor antibody [MEM-75] (APC)

Package: 100 tests  
Store at: 4°C

### Summary

|                     |  |
|---------------------|--|
| Product Description | APC-conjugated Mouse Monoclonal antibody [MEM-75] recognizes CD71 / Transferrin Receptor   |
| Tested Reactivity   | Hu   |
| Tested Application  | FACS   |
| Specificity         | The clone MEM-75 reacts with CD71 antigen (transferrin receptor), a 95 kDa type II homodimeric transmembrane glycoprotein expressed on activated B and T lymphocytes, macrophages and erythroid precursors; it is lost on resting blood leukocytes.<br>MEM-75 does not block binding of transferrin to the receptor.<br>HLDA IV; WS Code A 45<br>HLDA V; WS Code T T-165 |
| Host                | Mouse  |
| Clonality           | Monoclonal   |
| Clone               | MEM-75   |
| Isotype             | IgG1   |
| Target Name         | CD71 / Transferrin Receptor  |
| Species             | Human  |
| Immunogen           | NALM-6 human pre-B cell line   |
| Conjugation         | APC  |
| Alternate Names     | TFR1; CD antigen CD71; CD71; T9; p90; TR; Trfr; Transferrin receptor protein 1; TRFR; sTfR; TfR1; TfR; TFR   |

### Application Instructions

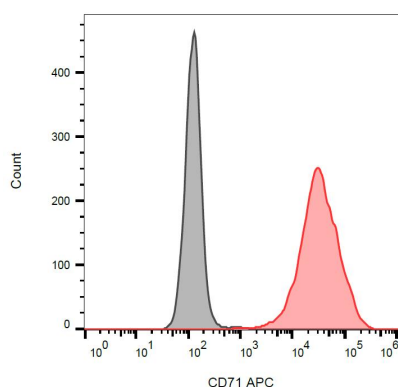
| Application table | <table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>FACS</td><td>10 µl / 10<sup>6</sup> cells</td></tr> </table>              | Application | Dilution | FACS | 10 µl / 10 <sup>6</sup> cells |
|-------------------|--|-------------|----------|------|-------------------------------|
| Application       | Dilution   |             |          |      |                               |
| FACS              | 10 µl / 10 <sup>6</sup> cells  |             |          |      |                               |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |             |          |      |                               |

### Properties

|                   |   |
|-------------------|---|
| Form              | Liquid  |
| Purification Note | The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary. |
| Buffer            | PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA   |
| Preservative      | 15 mM Sodium azide  |
| Stabilizer        | 0.2% (w/v) high-grade protease free BSA   |

|                       |  |
|-----------------------|--|
| Storage instruction   | Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.   |
| Note                  | For laboratory research only, not for drug, diagnostic or other use.   |
| <b>Bioinformation</b> |  |
| Database links        | <a href="#">GeneID: 7037 Human</a><br><a href="#">Swiss-port # P02786 Human</a>  |
| Gene Symbol           | TFRC   |
| Gene Full Name        | transferrin receptor   |
| Background            | CD71 (transferrin receptor) is a type II transmembrane glycoprotein expressed as homodimer in erythroid blood cell line and in activated leukocytes. Upon binding of holotransferrin (complex of transferrin and iron ions), CD71 is internalized by clathrin-mediated endocytosis. Acidification of endosomes by vesicular membrane proton pumps leads to dissociation of iron ions, whereas transferrin (apotransferrin) remains associated with CD71 and recycles to the cell surface, where it is released upon exposure to normal pH. CD71 is also involved in uptake of non-transferrin bound iron.                            |
| Function              | Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes. Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral pH and the concomitant loss of affinity of apotransferrin for its receptor. Transferrin receptor is necessary for development of erythrocytes and the nervous system (By similarity). A second ligand, the hereditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site. [UniProt] |
| Research Area         | Cancer antibody; Cell Biology and Cellular Response antibody; Developmental Biology antibody; Immune System antibody; Metabolism antibody  |
| Calculated Mw         | 85 kDa   |
| PTM                   | N- and O-glycosylated, phosphorylated and palmitoylated. The serum form is only glycosylated. Proteolytically cleaved on Arg-100 to produce the soluble serum form (sTfR). Palmitoylated on both Cys-62 and Cys-67. Cys-62 seems to be the major site of palmitoylation.   |

## Images



ARG53895 anti-CD71 / Transferrin Receptor antibody [MEM-75] (APC) FACS image

Flow Cytometry: K562 cells (red) and Human lymphocytes (grey, negative control) stained with ARG53895 anti-CD71 / Transferrin Receptor antibody [MEM-75] (APC).