

## Rat CD28 Monoclonal Antibody | anti-CD28 antibody

RAT ANTI HUMAN CD28:RPE

|                              |                    |                                                         |
|------------------------------|--------------------|---------------------------------------------------------|
| CATALOG #<br><b>AAA49511</b> | HOST<br><b>Rat</b> | APPLICATIONS<br><b>Flow Cytometry, Functional Assay</b> |
|------------------------------|--------------------|---------------------------------------------------------|

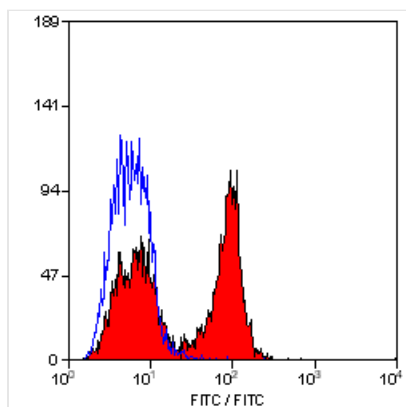
### PRODUCT SYNONYMS

CD28; Monoclonal Antibody; RAT ANTI HUMAN CD28:RPE; anti-CD28 antibody

### PRODUCT SPECIFICATIONS

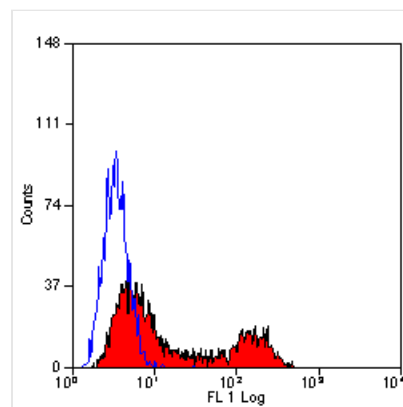
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|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rat                                                                                                                                                                                                                                                                                                                                                                |
| Clonality                                      | Monoclonal                                                                                                                                                                                                                                                                                                                                                         |
| Isotype                                        | IgG2b                                                                                                                                                                                                                                                                                                                                                              |
| Clone Number                                   | YTH913.12                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format                                    | Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilised                                                                                                                                                                                                                                                                                                    |
| Sequence Length                                | 234                                                                                                                                                                                                                                                                                                                                                                |
| Applicable Applications for anti-CD28 antibody | FCM/FACS (Flow Cytometry)                                                                                                                                                                                                                                                                                                                                          |
| Reconstitution                                 | Reconstitute with 1 ml distilled water<br>Perservative Stabilisers                                                                                                                                                                                                                                                                                                 |
| Buffer Solution                                | Phosphate buffered saline                                                                                                                                                                                                                                                                                                                                          |
| Target Species                                 | Human                                                                                                                                                                                                                                                                                                                                                              |
| Preparation and Storage                        | Prior to reconstitution store at 4 degree C. Following reconstitution store at 4 degree C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.<br>Shelf Life: 12 months from date of reconstitution. |

### IMAGES



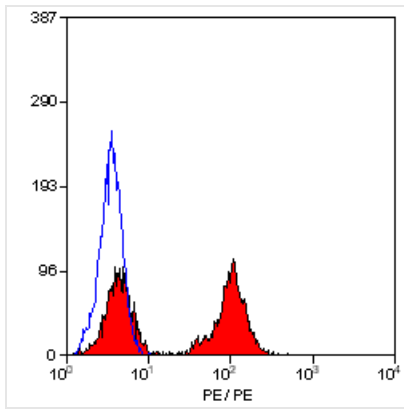
#### Application Data

Staining of human peripheral blood lymphocytes with Rat anti Human CD28

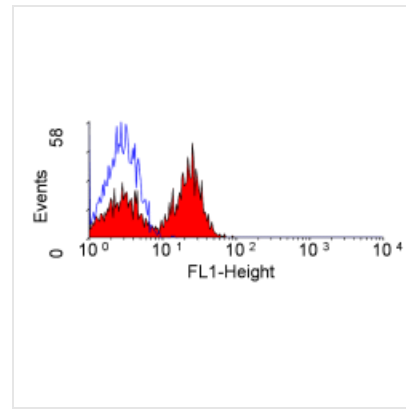


#### Application Data

Staining of human peripheral blood lymphocytes with Rat anti Human CD28: Alexa Fluor 647



**Application Data**  
Staining of human peripheral blood lymphocytes with Rat anti Human CD28:RPE



**Application Data**  
Staining of human peripheral blood lymphocytes with Rat anti Human CD28: Biotin

## ADDITIONAL INFORMATION

### Related Product Information for anti-CD28 antibody

Rat anti Human CD28 antibody, clone YTH913.12 recognizes human CD28, a ~44kDa single pass type 1 trans-membrane protein expressed as a homodimer on a major subset of human T-cells (Thompson et al. 1989), responsible for activation of these cells via interaction with the TCR. CD28 is involved in the tuning of the T-cell for activation via TCR, lowering the threshold for activation from around 8000 triggered TCRs to approximately 1500 (Viola et al.1996). CD28 along with CD152, also known as CTLA-4 acts as a co-receptor for the co-stimulatory molecules CD80 and CD86 (Azuma et al. 1993). CD28 offers a positive stimulatory role on ligation of CD80 and CD86 while CTLA-4 offers a negative feedback signal preventing CD28 mediated T-cell activation of CD86 (Krummel et al. 1995) Rat anti human CD28, clone YTH913.12 has been reported to recognize an epitope of CD28 expressed by NK cells, which is not recognized by other anti human CD28 clones such as 9.3 and CD28.2 (Galea-Lauri et al 1999.) Other reports however have failed to demonstrate CD28 staining on peripheral blood derived KK cells using clone YTH913.12 (Wilson et al. 1999).

## NCBI AND UNIPROT INFORMATION

|                                  |                                                                                |
|----------------------------------|--------------------------------------------------------------------------------|
| NCBI GI #                        | 340545508                                                                      |
| NCBI GeneID                      | 940                                                                            |
| NCBI Accession #                 | NP_001230006.1                                                                 |
| NCBI GenBank Nucleotide #        | NM_001243077.1                                                                 |
| UniProt Accession #              | P10747; Q13964; Q52M23; Q70WGO; Q8NI54; Q8NI55; Q8NI56; Q8WXJ2; Q9BYV0; A8KAC1 |
| Molecular Weight                 | 26,186 Da                                                                      |
| NCBI Official Full Name          | T-cell-specific surface glycoprotein CD28 isoform 2                            |
| NCBI Official Synonym Full Names | CD28 molecule                                                                  |
| NCBI Official Symbol             | CD28                                                                           |
| NCBI Official Synonym Symbols    | Tp44                                                                           |
| NCBI Protein Information         | T-cell-specific surface glycoprotein CD28; CD28 antigen                        |
| UniProt Protein Name             | T-cell-specific surface glycoprotein CD28                                      |
| UniProt Gene Name                | CD28                                                                           |
| UniProt Entry Name               | CD28_HUMAN                                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.