

# CD28 Monoclonal Antibody (37.51), Functional Grade, eBioscience™

| Product Details             |  |
|-----------------------------|--|
| Size                        | 100 µg   |
| Species Reactivity          | Mouse  |
| Published Species           | Mouse, Human   |
| Host/Isotype                | Syrian hamster / IgG   |
| Recommended Isotype Control | Syrian Hamster IgG Isotype Control, Functional Grade, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | 37.51  |
| Conjugate                   | Functional Grade   |
| Form                        | Liquid   |
| Concentration               | 1 mg/mL  |
| Purification                | Affinity chromatography  |
| Storage buffer              | PBS, pH 7.2  |
| Contains                    | no preservative  |
| Storage conditions          | 4° C   |
| RRID                        | AB_468921  |

| Applications                | Tested Dilution | Publications    |
|-----------------------------|-----------------|-----------------|
| Western Blot (WB)           | -               | 1 Publication   |
| Flow Cytometry (Flow)       | 0.5 µg/test     | 59 Publications |
| ELISA (ELISA)               | -               | 2 Publications  |
| Functional Assay (FN)       | Assay-Dependent | 76 Publications |
| Inhibition Assays (IA)      | -               | 1 Publication   |
| T-Cell Activation (TCA)     | -               | 5 Publications  |
| In vitro Assay (IV)         | -               | 12 Publications |
| Miscellaneous PubMed (Misc) | -               | 3 Publications  |

## Product Specific Information

**Description:** The 37.51 monoclonal antibody reacts with the mouse CD28 molecule, a 45 kDa homodimer expressed by thymocytes, mature T cells and NK cells. CD28 is a ligand for CD80 (B7-1) and CD86 (B7-2) and is a potent costimulator of T cells. Signaling through CD28 augments IL-2 and IL-2 receptor expression as well as cytotoxicity of CD3-activated T cells.

**Applications Reported:** The 37.51 antibody has been reported for use in flow cytometric analysis. 37.51 has also been reported in costimulation of T cells in vitro and in vivo .

**Applications Tested:** The 37.51 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

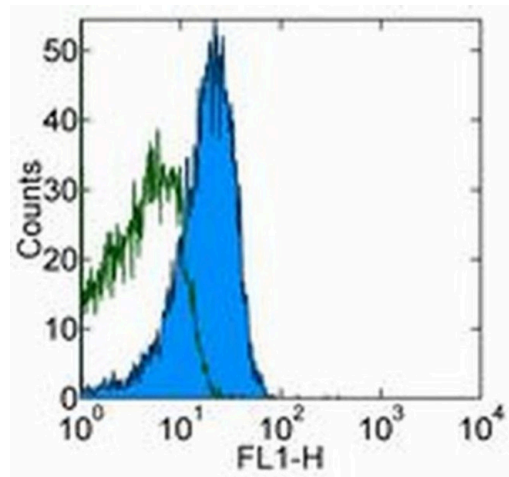
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

**Product Images For CD28 Monoclonal Antibody (37.51), Functional Grade, eBioscience™**



**CD28 Antibody (16-0281-82) in Flow**  
Staining of BALB/c thymocytes with 0.25 µg of Golden Syrian Hamster IgG Isotype Control Functional Grade Purified (Product # 16-4914-85) (open histogram) or 0.25 µg of Anti-Mouse CD28 Functional Grade Purified (filled histogram) followed by Anti-Golden Syrian Hamster IgG FITC (Product # 11-4211-85). Cells in the lymphocyte gate were used for analysis.

Western Blot (1)

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| <p>Science advances</p> <p><b>FOXO1 deficiency impairs proteostasis in aged T cells.</b></p> <p>"16-0281 was used in Cell Culture to show that FOXO1 promotes lysosome function through the induction of the key transcription factor for lysosomal proteins, TFEB."</p> <p>Authors: Jin J,Li X,Hu B,Kim C,Cao W,Zhang H,Weyand CM,Goronzy JJ</p> | <p>Year<br/>2020</p> <p>Species<br/>Human</p> |
|---|---|

Flow Cytometry (59)

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|---|---|
| <p>Cancer immunology, immunotherapy : CII</p> <p><b>Alanine-based spacers promote an efficient antigen processing and presentation in neoantigen polypeptide vaccines.</b></p> <p>"16-0281-82 was used in Flow cytometry/Cell sorting to evaluate the impact of linker regions on the MHC-I-dependent antigen presentation using an in vitro assay that assesses the MHC-I presentation of SIINFEKL, a H-2 Kb-restricted OVA peptide."</p> <p>Authors: Aguilar-Gurrieri C,Barajas A,Rovirosa C,Ortiz R,Urrea V,de la Iglesia N,Clotet B,Blanco J,Carrillo J</p> | <p>Year<br/>2023</p> <p>Species<br/>Mouse</p> |
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| <p>JCI insight</p> <p><b>A reengineered common chain cytokine augments CD8+ T cell-dependent immunotherapy.</b></p> <p>"16-0281-82 was used in Flow cytometry/Cell sorting to describe the signaling properties of a potentially unique cytokine by design, where T cell surface binding and signaling are separated between 2 different families of receptors."</p> <p>Authors: Banerjee A,Li D,Guo Y,Mei Z,Lau C,Chen K,Westwick J,Klauda JB,Schrum A,Lazear ER,Krupnick AS</p> | <p>Year<br/>2022</p> <p>Species<br/>Human</p> |
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[View more Flow references on thermofisher.cn](#)

ELISA (2)

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| <p>Nature communications</p> <p><b>A nanounit strategy reverses immune suppression of exosomal PD-L1 and is associated with enhanced ferroptosis.</b></p> <p>"16-0281-82 was used in ELISA to develop an assembly of exosome inhibitor and ferroptosis inducer via amphiphilic hyaluronic acid that enhances the response to PD-L1 checkpoint blockade."</p> <p>Authors: Wang G,Xie L,Li B,Sang W,Yan J,Li J,Tian H,Li W,Zhang Z,Tian Y,Dai Y</p> | <p>Year<br/>2021</p> <p>Species<br/>Mouse</p> |
|---|---|

More applications with references on thermofisher.cn

- FN (76)
- IA (1)
- TCA (5)
- IV (12)
- Misc (3)

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