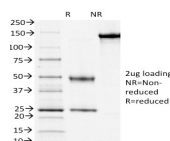


CD3e Monoclonal Mouse Antibody (OKT3)



Product Description

Recognizes the epsilon-chain of CD3, which consists of five different polypeptide chains (designated as gamma, delta, epsilon, zeta, and eta) with MW ranging from 16-28 kDa. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation. It is found on all mature T-lymphocytes, NK, T-cells, and some thymocytes, and is expressed, typically at high levels, on peripheral T cells and majority of T cell neoplasms. Thymocytes express CD3 at different level on the cell surface in the course of differentiation and CD3 is predominantly intracytoplasmic in cortical thymus.

Anti-CD3 clone OKT3 has been reported to have potent immunosuppressive properties in vivo and has been proven effective in the treatment of renal, heart and liver allograft rejection. In the crystal structure of the antibody-receptor complex, clone OKT3 was found to bind a conformational epitope on CD3e dominated by a linear stretch in the F-G loop of the subunit.

Also view our [CD3e Monoclonal Mouse Biotium Choice Antibody \(SK7\)](#). The antibody belongs to the Biotium Choice list of select antibodies that have been developed and validated in-house for optimal performance. The antibody has been validated in flow cytometry.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0268, Anti-CD3e (OKT3)

Product attributes

| | |
|---------------------------------------|---|
| Antibody number | #0268 |
| Antibody reactivity (target) | CD3e |
| Antibody type | Primary |
| Host species | Mouse |
| Clonality | Monoclonal |
| Clone | OKT3 |
| Isotype | IgG2a, kappa |
| Molecular weight | 23 kDa |
| Synonyms | CD3 epsilon; CD3 TCR complex; CD3e antigen epsilon polypeptide (TIT3 complex); T cell antigen receptor complex epsilon subunit of T3; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell surface glycoprotein CD3 epsilon chain; T3E |
| Human gene symbol | CD3E |
| Entrez gene ID | 916 |
| SwissProt | P07766 |
| Unigene | 3003 |
| Immunogen | Human PBMCs |
| Verified antibody applications | Flow (surface) (verified), IF (verified) |
| Antibody target cellular localization | Plasma membrane |
| Species reactivity | Human |
| Expected antibody applications | IHC (frozen) (published for clone), Functional studies (published for clone), IP (published for clone) |
| Positive control | Jurkat cells. Tonsil and lymph node |
| Shipping condition | Room temperature |
| Storage Conditions | Note: store BSA-free antibodies at -10 to -35°C, Store at 2 to 8 °C, Protect fluorescent conjugates from light |
| Regulatory status | For research use only (RUO) |
| Antibody/conjugate formulation | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide |
| Shelf life | Guaranteed for at least 24 months from date of receipt when stored as recommended |
| Product origin | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot. |
| Cell/tissue expression | T-cells |
| Tumor expression | Leukemia/lymphoma |

| Antibody # prefix | Conjugation | Ex/Em (nm) | Laser line | Detection channel | Dye Features |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04 | CF®405S | 404/431 | 405 | DAPI (microscopy), AF405 | CF®405S Features |
| BNC88 | CF®488A | 490/515 | 488 | GFP, FITC | CF®488A Features |
| BNC68 | CF®568 | 562/583 | 532, 561 | RFP, TRITC | CF®568 Features |
| BNC94 | CF®594 | 593/614 | 561 | Texas Red® | CF®594 Features |
| BNC40 | CF®640R | 642/662 | 633-640 | Cy®5 | CF®640R Features |
| BNC47 | CF®647 | 650/665 | 633-640 | Cy®5 | CF®647 Features |
| BNC74 | CF®740 | 742/767 | 633-685 | 775/50 | CF®740 Features |
| BNCB | Biotin | N/A | N/A | N/A | |
| BNUB | Purified | N/A | N/A | N/A | |
| BNUM | Purified, BSA-free | N/A | N/A | N/A | |

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

- J Cell Biol (1992) 267(17): 11685-11688. (immunoprecipitation)
- PNAS USA (2004) 101(20): 7675-7680. (crystal structure of antibody/antigen complex)
- J Immunol (2005) 174:3773-3780. (IHC, frozen)
- Blood (2011) 117: 5463-5472. (in vivo cell depletion)
- J Immunol (2012) 188:5538-5546. (functional studies)

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Product link: <https://biotium.com/product/cd3e-monoclonal-mouse-antibody-okt3/>