Datasheet: MCA2469F

BATCH NUMBER 164242

Description:	MOUSE ANTI HUMAN GLUCOCORTICOID RECEPTOR:FITC
Specificity:	GLUCOCORTICOID RECEPTOR
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	5E4
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat - 1/10

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) **Membrane permeabilization is required for this application. The use of Leucoperm (Product Code BUF09) is recommended for this purpose.**

Target Species

Human

Species Cross Reactivity

Reacts with: Mouse

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by ion exchange chromatography from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN_3) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	26 amino acid peptide corresponding to residues 150-176 on human GCR linked to thyroglobulin.
External Database Links	**UniProt:** P04150 Related reagents **Entrez Gene:** 2908 NR3C1 Related reagents
Synonyms	GRL
RRID	AB_566983
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse Sp-2/0 Ag14 myeloma cell line.
Specificity	**Mouse anti Human Glucocorticoid Receptor antibody, clone 5E4** recognizes the human glucocorticoid receptor, also known as Nuclear receptor subfamily 3 group C member 1 (NR3C1), a 777 amino acid receptor bearing 3 distinct functional domains, an N-terminal modulating domain, a DNA binding domain and a C-terminal steroid binding domain. The human glucocorticoid receptor is located either in the cytoplasm of cells, prior to ligand binding associated with certain heat shock proteins (Kino *et al.* 2009), or the nucleus following binding to ligand (Werb *et al.* 1978). Mutations in the glucocorticoid receptor gene can lead to familial glucocorticoid resistance, characterized by elevated plasma cortisol levels (Malchoff *et al.* 1993). Mouse anti human glucocorticoid receptor antibody, clone 5E4 has been demonstrated to cross-react with the murine glucocorticoid receptor (Bergquist *et al.* 2014)
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul.
References	1. Berki, T. *et al.* (1998) Production and flow cytometric application of a monoclonal anti-glucocorticoid receptor antibody. J Immunol Methods. 214 (1-2): 19-27. 2. Kim, S.Y. *et al.* (2010) Effect of p16 on glucocorticoid response in a B-cell lymphoblast cell line Korean J Pediatr 53: 753-8 3. Bergquist, M. *et al.* (2014) Glucocorticoid receptor function is decreased in neutrophils during endotoxic shock. J Infect. pii: S0163-4453(14)00081-4. 4. Bergquist, M. *et al.* (2016) Glucocorticoid receptor expression and binding capacity in patients with burn injury. Acta Anaesthesiol Scand. 60 (2): 213-21.

5. Bergquist, M. *et al.* (2015) Impairment of neutrophilic glucocorticoid receptor function in patients treated with steroids for septic shock. Intensive Care Med Exp. 3 (1): 59.
6. Bergquist, M. *et al.* (2013) Expression of the glucocorticoid receptor is decreased in experimental *Staphylococcus aureus* sepsis. J Infect. 67 (6): 574-83.
7. Fragala, M.S. *et al.* (2011) Glucocorticoid receptor expression on human B cells in response to acute heavy resistance exercise. Neuroimmunomodulation. 18 (3): 156-64.
8. Hodge, G. *et al.* (2015) Lymphocyte senescence in COPD is associated with loss of glucocorticoid receptor expression by pro-inflammatory/cytotoxic lymphocytes. Respir Res. 16 (1): 2.
9. Liddicoat, D.R. *et al.* (2014) The glucocorticoid receptor 1A3 promoter correlates with high sensitivity to glucocorticoid-induced apoptosis in human lymphocytes. Immunol Cell Biol. 92 (10): 825-36.
10. Kowalik, A. *et al.* (2013) Dexamethasone-FITC staining application for measurement of circadian rhythmicity of glucocorticoid receptor expression in mouse living thymocyte subsets. J Neuroimmunol. 261 (1-2): 44-52.
11. Hodge, G. *et al.* (2018) Bronchiolitis obliterans syndrome is associated with increased p-glycoprotein expression and loss of glucocorticoid receptor from steroid-resistant proinflammatory CD8(+) T cells. Clin Exp Immunol. 192 (2): 242-50.
12. Yu, Y. *et al.* (2022) Glucocorticoid receptor expression in patients with cardiac arrest in the early period after the return of spontaneous circulation: a prospective observational single-centre study BMJ Open. 12 (9): e060246.
13. Hodge, G. *et al.* (2022) COPD is associated with increased pro-inflammatory CD28null CD8 T and NKT-like cells in the small airways. Clin Exp Immunol. 207 (3): 351-9.
14. Li, J. *et al.* (2021) Leukocyte glucocorticoid receptor expression and related transcriptomic gene signatures during early sepsis. Clin Immunol. 223: 108660.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2469F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	**Worldwide**	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	**Europe**	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M404201:220820'

Printed on 25 Jul 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint