Technical Data Sheet

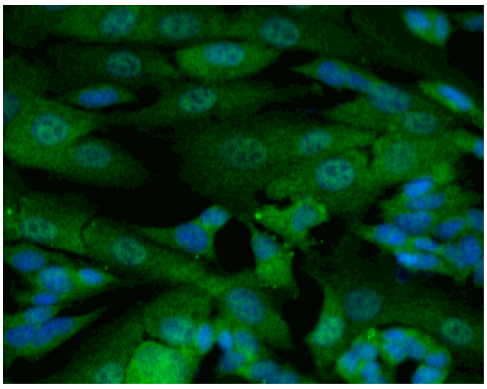
Purified Mouse Anti-Glucocorticoid Receptor

Product Information

Material Number:	**611227**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	41/Glucocorticoid Receptor
Immunogen:	Human Glucocorticoid Receptor α aa. 176-289
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	94 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Steroid hormone receptors are hormone activated transcriptional regulators that influence genes required for embryonic development and adult homeostasis. One member of the steroid hormone family is the glucocorticoid receptor. It contains AF1 and AF2 transactivation domains, a DNA binding domain, and ligand binding domain. Ligand bound glucocorticoid receptors dimerize at specific palindromic sequences called glucocorticoid response elements (GREs) in the cis-regulatory region of target genes. Both AF1 and AF2 may be important for initiation or regulation of transcription by interacting with components of the initiation complex or other intermediary factors. In addition to transactivation, glucocorticoid receptors may also regulate transcription through transrepression of target genes. Although mechanisms of transrepression are not completely understood; DNA binding alone, DNA binding plus interaction with other transcription factors, or protein-protein interaction without DNA binding are mechanisms that have been implicated. Thus, glucocorticoid receptors function in the regulation of specific genes that are essential for human development and homeostasis.



Western blot analysis of glucocorticoid receptor on HeLa cell lysate (left). *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of anti-glucocorticoid receptor.*

Immunofluorescent staining of SK-N-SH cells (right). *Cells were seeded in a 384 well collagen coated Microplates (Material # 353962) at ~ 8,000 cells per well. After overnight incubation, cells were stained using the methanol fix/perm protocol (see Recommended Assay Procedure; Bioimaging protocol link) and the anti- Glucocorticoid Receptor antibody. The second step reagent was Alexa Fluor® 488 goat anti mouse Ig (Invitrogen)(pseudo colored green). Cell nuclei were counter stained with Hoechst 33342 (pseudo colored blue). The image was taken on a BD Pathway™ 855 or 435 Bioimager System using a 20x objective and merged using the BD AttoVison ™ software. This antibody also stained SH-SY5Y, C6, U87 and U373 cells using both the Triton X100 and methanol fix/perm protocols (see Recommended Assay Procedure; Bioimaging protocol link).*

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Bioimaging	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611449	HeLa Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Triton is a trademark of the Dow Chemical Company.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Beato M, Herrlich P, Schutz G. Steroid hormone receptors: many actors in search of a plot. *Cell.* 1995; 83(6):851-857. (Biology)

Hollenberg SM, Weinberger C, Ong ES, et al. Primary structure and expression of a functional human glucocorticoid receptor cDNA. *Nature.* 1985; 318(6047):635-641. (Biology)

Reichardt HM, Kaestner KH, Tuckermann J, et al. DNA binding of the glucocorticoid receptor is not essential for survival. *Cell.* 1998; 93(4):531-541. (Biology)

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