

Product datasheet

Glucocorticoid Receptor peptide ab5833

Overview

Product name Glucocorticoid Receptor peptide

Description

Nature Synthetic

Specifications

Our [Abpromise guarantee](#) covers the use of **ab5833** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications Blocking

Purity > 95 % SDS-PAGE.

Form Liquid

Additional notes

This peptide may be used for neutralization and control experiments with the polyclonal antibody that reacts with this product and the human GR, catalog [ab3579](#). Using a solution with equal weights per unit volume of peptide and corresponding antibody will yield a solution with a large molar excess of peptide that is able to competitively bind the antibody.

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

General Info

Function Receptor for glucocorticoids (GC). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE) and as a modulator of other transcription factors. Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Could act as a coactivator for STAT5-dependent transcription upon growth hormone (GH) stimulation and could reveal an essential role of hepatic GR in the control of body growth. Involved in chromatin remodeling. Plays a significant role in transactivation. Involved in nuclear

translocation.

Tissue specificity

Widely expressed. In the heart, detected in left and right atria, left and right ventricles, aorta, apex, intraventricular septum, and atrioventricular node as well as whole adult and fetal heart.

Involvement in disease

Defects in NR3C1 are a cause of glucocorticoid resistance (GCRES) [MIM:138040]; also known as cortisol resistance. It is a hypertensive, hyperandrogenic disorder characterized by increased serum cortisol concentrations. Inheritance is autosomal dominant.

Sequence similarities

Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

Domain

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

Post-translational modifications

Increased proteasome-mediated degradation in response to glucocorticoids.
Phosphorylated in the absence of hormone; becomes hyperphosphorylated in the presence of glucocorticoid. The Ser-203-phosphorylated form is mainly cytoplasmic, and the Ser-211-phosphorylated form is nuclear. Transcriptional activity correlates with the amount of phosphorylation at Ser-211.
Sumoylated; this reduces transcription transactivation.
Ubiquitinated; restricts glucocorticoid-mediated transcriptional signaling.

Cellular localization

Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand, nuclear after ligand-binding and Nucleus. Localized largely in the nucleus.

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