Active Glucocorticoid Receptor (GR)

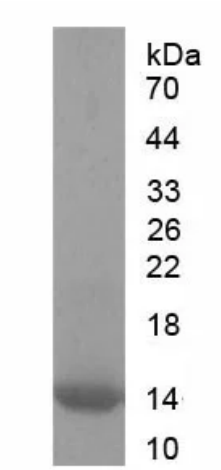
Catalog#:PEH12706

概述（Summary）

别称（Alternative Names）	GCCR; GCR; NR3C1; GRL; NR3-C1; Nuclear Receptor Subfamily 3, Group C, Member 1
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Val41-Tyr184】
Accession #	P04150
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	16.4 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Receptor for glucocorticoids (GC). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE), both for nuclear and mitochondrial DNA, and as a modulator of other transcription factors. Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Involved in chromatin remodeling. Plays a role in rapid mRNA degradation by binding to the 5' UTR of target mRNAs and interacting with PNRC2 in a ligand-dependent manner which recruits the RNA helicase UPF1 and the mRNA-decapping enzyme DCP1A, leading to RNA decay. 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.; Has transcriptional activation and repression activity. Mediates glucocorticoid-induced apoptosis. Promotes accurate chromosome segregation during mitosis. May act as a tumor suppressor. May play a negative role in adipogenesis through the regulation of lipolytic and antilipogenic gene expression.; Acts as a dominant negative inhibitor of isoform Alpha. Has intrinsic transcriptional activity independent of isoform Alpha when both isoforms are coexpressed. Loses this transcription modulator function on its own. Has no hormone-binding activity. May play a role in controlling glucose metabolism by maintaining insulin sensitivity. Reduces hepatic gluconeogenesis through down-regulation of PEPCK in an isoform Alpha-dependent manner. Directly regulates STAT1 expression in isoform Alpha-independent manner.; Has lower transcriptional activation activity than isoform Alpha. Exerts a dominant negative effect on isoform Alpha trans-repression mechanism.; Increases activity of isoform Alpha.; More effective than isoform Alpha in transcriptional activation, but not repression activity.; Has transcriptional activation activity.; Has transcriptional activation activity.; Has transcriptional activation activity.; Has highest transcriptional activation activity of all isoforms created by alternative initiation. Has transcriptional repression activity. Mediates glucocorticoid-induced apoptosis.; Has transcriptional activation activity.; Has transcriptional activation activity.; Has lowest transcriptional activation activity of all isoforms created by alternative initiation. Has transcriptional repression activity.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

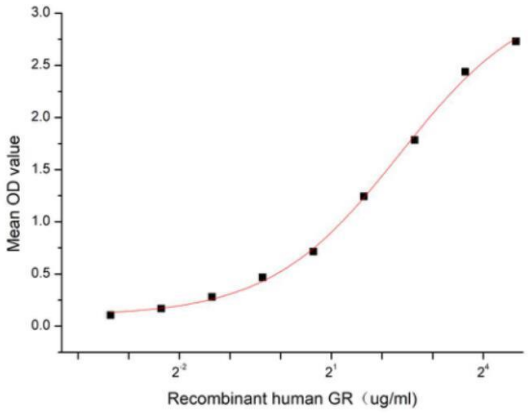


Figure 1. The binding activity of recombinant human GR and recombinant human HSPA4

Glucocorticoid Receptor (GR) is a member of the steroid receptor superfamily, which includes receptors for other steroid hormones such as estrogens, progestogens, androgens and mineralocorticoids. GR is widely distributed in various types of human cells, especially in liver, muscle, adipose tissue, lung, brain and other organs. GR plays a role in signaling within cells. When glucocorticoids enter cells and bind to GR, GR undergoes conformational changes that activate its transcriptional activity. It has been identified that the binding of Heat Shock 70kDa Protein 4 (HSPA4) to GR plays a key role in glucocorticoid signaling, which not only participates in the stabilization and activation of receptors, but also may affect the effect of drugs. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GR and recombinant human HSPA4. Briefly, GR was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to HSPA4-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GR pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human GR and recombinant human HSPA4 was shown in Figure 1, the EC50 for this effect is 5.1 ug/mL.

注意事项（Note）

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