



TECHNICAL DATASHEET

ERalpha monoclonal antibody

Other names: ESR, ESR1, ESRA, NR3A14

Cat. No. C15100066

Type: Monoclonal ChIP grade/ChIP-seq grade

Isotype: IgG1 kappa Source: Mouse Lot #: 007 Size: 100 µl

Concentration: Not determined

Specificity: Human, mouse: positive

Does not react with chicken; other species not tested

Purity: Ascites fluid from mouse containing 0.05% azide. **Storage:** Store at -20°C; for long storage, store at -80°C.

Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for

use in diagnostic or therapeutic procedures.

Description: Monoclonal antibody raised in mouse against human ERalpha (estrogen receptor alpha), using a synthetic peptide.

Applications

	Suggested dilution	Results
ELISA	1:500 -1:5,000	
Western blotting	1:500 -1:5,000	Ref 3
Gel Supershift	1:10 – 1:20	
Immunochemistry	1:500 -1:5,000	
Immunoprecipitation	1:200 -1:5,000	Ref 3
ChIP*	2.5 µl per ChIP	Fig 1; Ref 1, 2

^{*}Please note that the optimal antibody amount per IP should be determined by the end-user. We recommend testing 1-5 µl per IP.

References

This antibody has been described in:

- (1) Welboren WJ, van Driel MA, Janssen-Megens EM, van Heeringen SJ, Sweep FCJG, Span PN and Stunnenberg HG (2009) ChIP-Seq of ERα and RNA polymerase II defines genes differentially responding to ligands. EMBO J 28: 1418-1428.
- (2) Welboren W-J and Stunnenberg H (2008) ChIP-Seq profiling of estrogen receptor alpha binding sites using the Illumina Genome Analyzer. Application Note: Illumina Sequencing.
- (3) Han SI, Komatsu Y, Murayama A, Steffensen KR, Nakagawa Y, Nakajima Y, Suzuki M, Oie S, Parini P, Vedin LL, Kishimoto H, Shimano H, Gustafsson JÅ, Yanagisawa (2014)

Target description

The estrogen receptor alpha (ERalpha, UniProt/Swiss-Prot entry P03372) belongs to the family of nuclear hormone receptors, which are ligand-activated transcription factors. They are important for the regulation of gene expression, cellular proliferation and differentiation, sexual development and reproductive function. Estrogen receptors are also involved in pathological processes such as breast cancer, and osteoporosis. ERalpha can regulate transcription by direct binding to estrogen response elements (EREs) in the DNA or by interaction with other transcription factors. It may also form a heterodimer with ERbeta.

Results

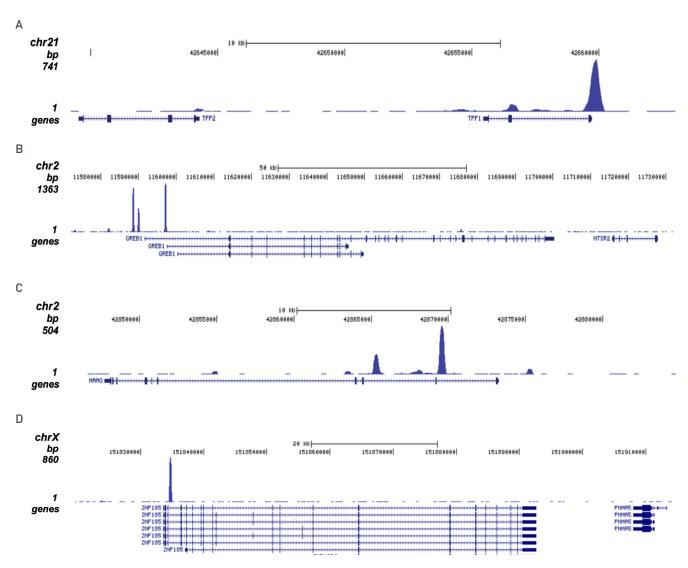


Figure 1. ChIP-seq results obtained with the Diagenode monoclonal antibody directed against ERalpha

ChIP was performed with the Diagenode monoclonal antibody against ERalpha (Cat. No. C15100066) on sheared chromatin from MCF7 cells treated for 1 hour with estradiol. The IP'd DNA was analysed with an Illumina Genome Analyzer. Library preparation, cluster generation and sequencing were performed according to the manufacturer's instructions. The 36 bp tags were aligned to the human genome using the ELAND algorithm. Figure 1 shows the obtained peaks near the TFF1 gene on chromosome 21 (figure 1A), the GREB1 and HAAO genes on chromosome 2 (figure 1B and C), and the ZNF185 gene on the X-chromosome (figure 1D).

Avenue de l'hôpital,1 Tour GIGA, 3rd Floor 4000 Liège - Belgium Tel: +32 4 364 20 50 Fax: +32 4 364 20 51 orders@diagenode.com info@diagenode.com 400 Morris Avenue, Suite 101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com