

Certificate of Analysis

Product: Affinity Purified Anti-EGR-1 [Rabbit]

Code: 600-401-693

Lot #: 16336

Size: 100 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.46 mg/ml (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Background: EGR-1 (also called **E**arly **G**rowth **R**esponse protein 1, Krox-24 protein, ZIF268, Nerve growth factor-induced protein A or NGFI-A, Transcription factor ETR103, and Zinc finger protein 225 or AT225) is a transcriptional regulator that recognizes and binds to the DNA sequence 5'-CGCCCCGC-3' (EGR-site). EGR-1 activates the transcription of target genes whose products are required for mitogenesis and differentiation. EGR-1 is a nuclear protein induced by growth factors. Expression has been identified in a variety of cancers.

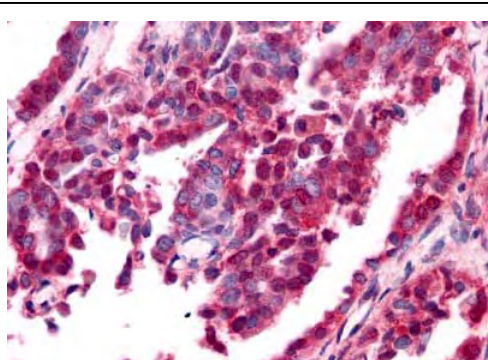
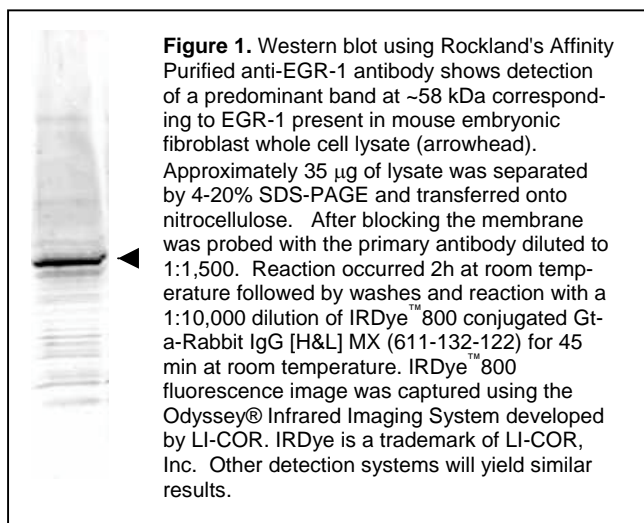


Figure 2. Immunohistochemistry. Rockland's Affinity Purified anti-EGR-1 antibody was used at a 10 µg/ml to detect nuclear and cytoplasmic signal with low background staining in a variety of tissues including multi-human, multi-brain and multi-cancer slides. Within the multi-tumor block, the antibody showed variable levels of nuclear and cytoplasmic staining between individual tumors, with some tumors showing moderate staining. This image shows EGR-1 staining of human ovarian carcinoma. Tissue was formalin-fixed and paraffin embedded.
Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



Application Note(s): This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~58 kDa in size corresponding to EGR-1 by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:4,000 - 1:16,000
WESTERN BLOT	1:500 - 1:3,000
IMMUNOHISTOCHEMISTRY	2 µg/ml to 20 µg/ml
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This affinity purified antibody is directed against human EGR-1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human and chimpanzee sources based on 100% homology for the immunogen sequence. This antibody is expected to cross react with EGR-1

homologues from mouse and rat based on an 86% sequence homology for the immunogen from these sources. Cross reactivity with EGR-1 homologues from other sources has not been determined.

Relevant Link(s): Swis-Prot [P18146](#) NCBI Link [P18146](#)

Protein Sequence: Human EGR-1, 543 aa, predicted MW 57.5 kDa

1	maaakaemql	msplqisdpf	gsfphsptmd	nypkleemml	lsngapqflg	aagapegsgs
61	nssssssggg	ggggggsnss	sssstfnpqa	dtgeqpyehl	taesfpdisl	nneklvets
121	ypsqttrlpp	itytgrfsls	papnsgntlw	peplfslvsg	lvsmtnppas	sssapspaas
181	sasasqsppl	scavpsndss	piysaaptfp	tpntdifpep	qsqafpgsag	talqppppay
241	paakggfqvp	mipdylfpqq	qgdIglgtpd	qkpfqglesr	tqqpsltpls	tikafatqsg
301	sqdlkalnts	yqsqlikpsr	mrkypnrpsk	tppherpyac	pvescdrfrs	rsdeltrhir
361	ihgqkpfqc	ricmrnfsrs	dhlthirth	tgekpfacdi	cgrkfarsde	rkrhkihr
421	qkdkkadksv	vassatssls	syvspvatsy	pspvttssyps	pattsyppsv	ptsfsspgss
481	typsvhsfg	pspsvattys	svppafpaqv	ssfssavtn	sfsastglsd	mtatfsprti
541	eic					

Immunogen: This affinity-purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 94-108 of Human EGR-1.

General References:

Suggs, S.V., Katzowitz, J.L., Tsai-Morris, C. and Sukhatme, V.P. (1990) cDNA sequence of the human cellular early growth response gene Egr-1. *Nucleic Acids Res.* **18** (14), 4283.

Shimizu, N., Ohta, M., Fujiwara, C., Sagara, J., Mochizuki, N., Oda, T. and Utiyama, H. (1992) A gene coding for a zinc finger protein is induced during 12-O-tetradecanoylphorbol-13-acetate-stimulated HL-60 cell differentiation. *J. Biochem.* **111** (2), 272-277.

Wright, J.J., Gunter, K.C., Mitsuya, H., Irving, S.G., Kelly, K. and Siebenlist, U. (1990) Expression of a zinc finger gene in HTLV-I- and HTLV-II-transformed cells. *Science* **248** (4955), 588-591.

Related Products:

#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10	
#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10	
#B501-0500	500 g	BLOTTO
#BSA-30	500 ml	30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer)
#B304	10 ml	NORMAL GOAT SERUM (NGS)
#KIA-003	MaxTag™ Anti-RABBIT IgG Kit for Immunoblotting	
#MB-070	Blocking Buffer for Fluorescent Western Blotting	

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.