

Certificate of Analysis

PolarScreen™ ER Alpha Competitor Assay, Green, 800 x 20 µL

ThermoFisher
SCIENTIFIC

Part Number: A15883

Lot Number: 3241237

Immediate Storage: -80°C

Shipping Conditions: dry ice

5781 Van Allen Way

Carlsbad, CA 92008

Phone: 760.603.7200

www.thermofisher.com

Components:

Description	Composition	Quantity	Part Number	Lot Number
ER Alpha Full Length	50 mM Tris-HCl (pH 8.0), 500 mM KCl, 1mM EDTA, 1 mM Na ₃ VO ₄ , 2 mM DTT and 10% Glycerol.	2 × 140 µg	A15674*	2667567B
Fluormone™ ES2 Green	1800 nM* in 80% Methanol 20% water	40 µL	PV6045	2611541E
ES2 Screening Buffer	Proprietary Buffer (pH 7.4), 0% Glycerol.	120 mL	P2616	2979702C

*See individual COA

Storage and Handling: The performance of this product is guaranteed for 6 months from the date of purchase if stored and handled properly.

Description	Storage and Handling
ER Alpha Full Length	If properly stored in its original container at -80°C, this product is guaranteed for 6 months from date of purchase. Mix gently, do not vortex.
Fluormone™ ES2 Green	Store at -20°C. Vortex the Fluormone™ before use. Note: To completely remove Fluormone™ from the glass insert tube, a 10 µL pipette tip with a very narrow long tip, such as Rainin GPSL10S, is required.
ES2 Screening Buffer	20–30°C Mix prior to use.

QUALITY ASSURANCE

Functional Testing:

Kit components are functionally tested for performance in the assay using a titration of a known agonist or antagonist.

Assay Specifications:

Using the conditions described in the kit protocol and keeping the plates in the dark and covered to prevent evaporation this kit has the following specification(s):

Specification	Value
ΔmP (EC ₈₀)	≥ 120 mP

Manufacturing Specifications:

The concentration of Fluormone™ ES2 Green was determined by measuring its absorbance.

Note: The method for determining the concentration of Fluormone™ ES2 Green has been changed from fluorescent intensity to absorbance. Please refer to the protocol or contact Technical Support at 760-603-7200 extension 40266.

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Fluormone™ is a trademark of Life Technologies Corporation.

PolarScreen™ is a trademark of Life Technologies Corporation.

Certificate of Analysis

ER Alpha Full Length, 140 µg

Recombinant Human, untagged, full length.

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Part Number: A15674

Lot Number: 2667567B

Immediate Storage: -80°C

Shipping Conditions: dry ice

5781 Van Allen Way

Carlsbad, CA 92008

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Description:

ER Alpha Full Length, Recombinant Human, untagged, full length.

Concentration:

0.30 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

Calculated **4,520 nM**.

Note: As of November 2012 we no longer perform radioligand binding assays to determine the active nM concentration and specific activity. The reported nM concentration is based on the Bradford protein assay and calculated using the molecular weight.

Assay Concentration(s):

28 nM ER Alpha Full Length is the final concentration recommended for the PolarScreen™ ER Alpha Competitor Assay, Red (A15884).

30 nM ER Alpha Full Length is the final concentration recommended for the PolarScreen™ ER Alpha Competitor Assay, Green (A15883 or A15882).

Aliases:

ESR1, ER, ESR, ESRA, Era, NR3A1

Storage and Handling:

If properly stored in its original container at -80°C, this product is guaranteed for 6 months from date of purchase. **Mix gently, do not vortex.**

Do **NOT** make single use aliquots.

Storage Buffer:

50 mM Tris-HCl (pH 8.0), 500 mM KCl, 1 mM EDTA, 1 mM Na₃VO₄, 2 mM DTT and 10% Glycerol.

QUALITY ASSURANCE

Functional Testing:

The performance of each lot of ER Alpha Full Length is confirmed in the following assay(s):

PolarScreen™ ER Alpha Competitor Assay, Green (A15883 or A15882). The ligand Estradiol, [6, 7-³H 9 (N)] was shown to displace Fluormone ES2 Green from ER Alpha Full Length.

PolarScreen™ ER Alpha Competitor Assay, Red (A15884). The ligand Estradiol, [6, 7-³H 9 (N)] was shown to displace Fluormone EL Red from ER Alpha Full Length.

Gel Information for ER Alpha Full Length

Page Description: The SDS-PAGE and/or Native PAGE were run on 4-20% Tris-Glycine Novex™ gels (Catalog #: EC6025BOX).

Lane 1: Invitrogen™ BenchMark™ Protein Ladder (Catalog #: 10747-012).

Lane 2: 0.5 µg ER Alpha Full Length

Lane 3: 1.0 µg ER Alpha Full Length

Lane 4: 2.5 µg ER Alpha Full Length

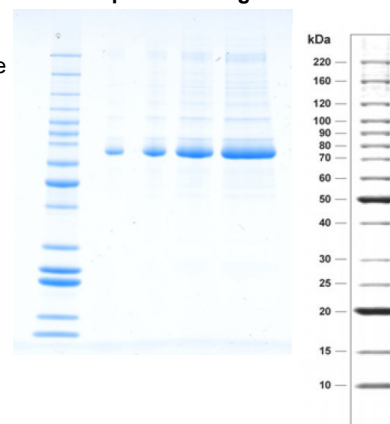
Lane 5: 5.0 µg ER Alpha Full Length

Purity:

80% as determined by a SDS-PAGE gel stained with SimplyBlue™ SafeStain.

Molecular Weight:

66.4 kDa. Calculated from the protein sequence(s).



Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_000116.2

1	MTMTLHTKAS	GMALLHQIQG	NELEPLNRPQ	LKIPLERPLG	EVYLDSSKPA	VYNYPEGAAY	EFNAAAAANA	QVYGQTGLPY	GPGSEAAAFG	SNGLGGFPPL	IVGN	ER	ALPHA
1	MTMTLHTKAS	GMALLHQIQG	NELEPLNRPQ	LKIPLERPLG	EVYLDSSKPA	VYNYPEGAAY	EFNAAAAANA	QVYGQTGLPY	GPGSEAAAFG	SNGLGGFPPL	NP_000116.2		
101	NSVSPSPLML	LHPPPQLSPF	LQPHGQQVPY	YLENEPSGYT	VREAGPPAFY	RPNSDNRRQG	GRERLASTND	KGSMAMESAK	ETRYCAVCND	YASGYHYGVW			
101	NSVSPSPLML	LHPPPQLSPF	LQPHGQQVPY	YLENEPSGYT	VREAGPPAFY	RPNSDNRRQG	GRERLASTND	KGSMAMESAK	ETRYCAVCND	YASGYHYGVW			
201	SCEGCKAFFK	RSIQGHNDYM	CPATNQCTID	KNRRKSCQAC	RLRKCYEVGM	MKGGIRKDRR	GGRMLKHKQ	RDDGEGRGEV	GSAGDMRAAN	LWPSPLMIKR			
201	SCEGCKAFFK	RSIQGHNDYM	CPATNQCTID	KNRRKSCQAC	RLRKCYEVGM	MKGGIRKDRR	GGRMLKHKQ	RDDGEGRGEV	GSAGDMRAAN	LWPSPLMIKR			
301	SKKNSLALSL	TADQMVSALL	DAEPPILYSE	YDPTRPFSEA	SMMGLLTNLA	DRELVHMINW	AKRVPGFVDL	TLHDQVHLL	CAWLEILMIG	LVWRSMEHPG			
301	SKKNSLALSL	TADQMVSALL	DAEPPILYSE	YDPTRPFSEA	SMMGLLTNLA	DRELVHMINW	AKRVPGFVDL	TLHDQVHLL	CAWLEILMIG	LVWRSMEHPG			
401	KLLFAPNLLL	DRNQGKCEVG	MVEIFDMLLA	TSSRFRMMNL	QGEFVCLKS	IILLNSGVYT	FLSSTLKSLE	EKDHIHRVLD	KITDTLIHLM	AKAGLTQQQ			
401	KLLFAPNLLL	DRNQGKCEVG	MVEIFDMLLA	TSSRFRMMNL	QGEFVCLKS	IILLNSGVYT	FLSSTLKSLE	EKDHIHRVLD	KITDTLIHLM	AKAGLTQQQ			
501	HQRLAQLLLI	LSHIRHMSNK	GMEHLYSMKC	KNVVPLYDLL	LEMLDAHRLH	APTSRGGASV	EETDQSHLAT	AGSTSSHSLQ	KYYITGEAEG	FPATV			
501	HQRLAQLLLI	LSHIRHMSNK	GMEHLYSMKC	KNVVPLYDLL	LEMLDAHRLH	APTSRGGASV	EETDQSHLAT	AGSTSSHSLQ	KYYITGEAEG	FPATV			

* highlighted residues denote differences from the reference protein sequence(s).



Chevojn Joseph, Director, Quality

Date: 19/Feb/2024

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