Product Datasheet

Curcumin

NBP2-26243-5g

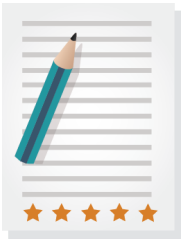
Unit Size: 5 g

Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP2-26243

Updated 10/23/2024 v.20.1



NBP2-26243-5g

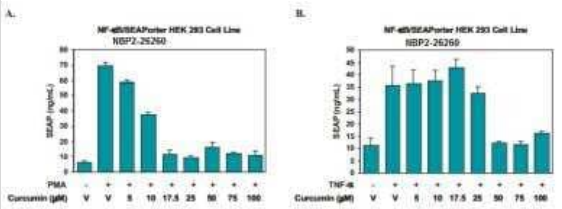
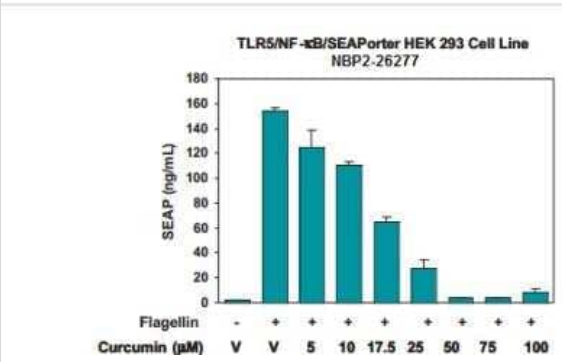
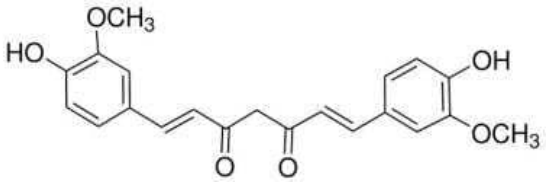
Curcumin

Product Information	
Unit Size	5 g
Concentration	Please see the protocols for proper use of this product. If no protocol is available, contact technical services for assistance.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Reconstitution Instructions	Reconstitute with DMSO to bring curcumin to a final concentration of 11 mg/ml.

Product Description	
Species	Human
Immunogen	CAS Number 458-37-7 Linear Formula [HOC6H3(OCH3)CH=CHCO]2CH2 Molecular Weight 368.38 Beilstein Registry Number 2306965 Colour Index Number 75300 EC Number 207-280-5 MDL number MFCD00008365 PubChem Substance ID 24892408

Product Application Details	
Application Notes	1.Inhibition of NF-kB signaling. This includes inhibition of NF-kB activity induced by Toll-like receptor (TLR) ligands, TNF-phorbol-12-myristate-13-acetate (PMA), and hydrogen peroxide. 2. Inhibition of other cell signaling molecules including c-Jun/AP-1, Protein kinase C, MAPK, Bcl-2, COX-2, EGFR, and mTOR pathways. Additionally, curcumin can directly inhibit homodimerization of TLR4. 3. Curcumin activates certain signaling molecules including sucBax and Bcl-XS. 4. Researchers are encouraged to consult the literature regarding additional information on curcumin applications.

Images

Curcumin [NBP2-26243] - inhibition of PMA and TNF-a activated NF-kB signaling. NF-kB/SEAPorterTM HEK 293 (NBP2-26260) cells were plated in 12-well plates (0.5 x 10^6 cells/well) for 16 h. Cells were preincubated with different concentrations of DMSO-solubilized curcumin for 2 h or a DMSO vehicle (V) control. Cell were then stimulated with 10 ng/ml phorbol-12-myristate-13-acetate (PMA) [A] or 10 ng/ml TNF-a [B] for 24 h. The SEAPorter Assay Kit was used to measure SEAP, the readout assay for measuring NF-kB activation in TLR5/NF-kB cells. The results showed that the cells had basal level of NF-kB activity which was increased by PMA or TNF-a . They also show that curcumin decreased PMA and TNF-a activated NF-kB signaling in a dose-dependent manner	
Ligand Activation: Curcumin [NBP2-26243] - Curcumin inhibition of ligand activated TLR/NF-kB signaling. TLR5/NF-kB/SEAPorterTM HEK 293 (NBP2-26277) cells were plated in 12-well plates (0.5 x 106 cells/well) for 16 h. Cells were preincubated with increasing concentrations of DMSO-solubilized curcumin (IMG-2010) for 2 h or a DMS0 vehicle (V) control. Cell were stimulated with the TLR5 ligand Flagellin (10 ng/ml: NBP2-25289 for 24 h. The SEAPorter Assay Kit was used to measure SEAP, the readout assay for measuring NF-kB activation in TLR5/NF-kB cells. The results showed that the cells had a minimal basal level of NF-kB activity which was dramatically increased by Flagellin. They also, shown that curcumin decreased Flagellin-activated NF-kB signaling in a dose-dependent manner.	
Curcumin [NBP2-26243]	

Procedures

Product Handling Protocol (NBP2-26243)
Product Handling Protocol (NBP2-26243):
1. Add DMSO to bring curcumin to desired concentration; Solubility is at 11mg/ml
2. Dissolve curcumin in DMSO completely by gentle vortex.
3. Divide into useable aliquots and store them at -80C (Stock solutions are stable for up to 3 months at -80C).
4. Thaw stock solution briefly in a 37C water bath just prior to use.
5. Perform a pilot inhibitory assay with different concentrations of curcumin ranging from 5 to 100 M to optimize your experiments.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis.
Support products are guaranteed for 6 months from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP2-26243

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications