

Store at
RT**BAY 11-7082**

#78679

5 mg


Cell Signaling
TECHNOLOGY®

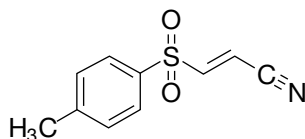
Support: +1-978-867-2388 (U.S.)
www.cellsignal.com/support

Orders: 877-616-2355 (U.S.)
orders@cellsignal.com

New 11/19

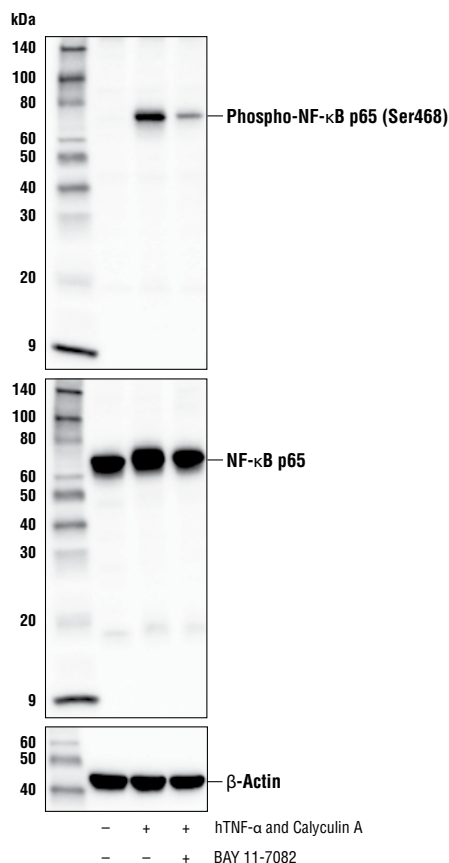
For Research Use Only. Not For Use In Diagnostic Procedures.

Background: BAY 11-7082 is a selective and irreversible inhibitor of cytokine-induced I κ B α phosphorylation. Treatment with TNF- α leads to the activation of I κ B α resulting in nuclear translocation of NF- κ B where it regulates gene expression. Inhibition of I κ B α phosphorylation leads to the inactivation of NF- κ B (1). The effect that BAY 11-7082 has on proinflammatory cytokine production as it relates to the NF- κ B/I κ B kinase pathways makes it useful when studying inflammation (2). This compound inhibits IFN- α production and nuclear translocation of interferon regulatory factor 7 (IRF7) in human plasmacytoid dendritic cells, both important factors when studying immunotherapeutic strategies as they relate to autoimmune disorders (3). BAY 11-7082 inhibits TNF- α -induced surface expression of ICAM-1, VCAM-1, and E-Selectin in human endothelial cells with an IC₅₀ value between 5–10 μ M (1).

Molecular Formula: C₁₀H₉N₂S

Molecular Weight: 207.3 g/mol

Purity: >98%

CAS: 19542-67-7

Solubility: Soluble in DMSO at 25 mg/ml or ethanol at 15 mg/ml.


Western blot analysis of extracts from HeLa cells, untreated (-) or treated with Human Tumor Necrosis Factor- α (hTNF- α) #8902 (20 ng/ml, 5 min; +) and Calyculin A #9902 (50 nM, 5 min; +) with or without pretreating the cells with BAY 11-7082 (5 μ M, 1 hr; +), using Phospho-NF- κ B p65 (Ser468) Antibody #3039 (upper), NF- κ B p65 (D14E12) XP® Rabbit mAb #8242 (middle), and β -Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Store lyophilized at room temperature, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use: BAY 11-7082 is supplied as a lyophilized powder. For a 20 mM stock, reconstitute 5 mg of powder in 1.2 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References:

- (1) Pierce, J.W. et al. (1997) *J Biol Chem* 272, 21096-103.
- (2) Lappas, M. et al. (2005) *Endocrinology* 146, 1491-7.
- (3) Miyamoto, R. et al. (2010) *Arthritis Res Ther* 12, R87.

Thank you for your recent purchase. If you would like to provide a review visit cellsignal.com/comments.

www.cellsignal.com

© 2019 Cell Signaling Technology, Inc.

XP and Cell Signaling Technology are trademarks of Cell Signaling Technology, Inc.

Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.