NF-κB Signaling Compound Library

Catalog No: #L3800

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Description

Product Name	NF-κB Signaling Compound Library
Brief Description	Nuclear factor-??B (NF-??B), a collective term for a family of transcription factors, includes five subunits: NF-??B1 (p50/p105), NF-??B2 (p52/p100), p65 (RelA), RelB, and c-Rel. The homodimers or heterodimers formed by two subunits bind to specific sequences known as the ??B site on their target genes for DNA interaction and transcriptional activation. How NF-??B selectively recognizes a small subset of relevant ??B sites from the large excess of potential binding sites is a critical step for stimulus-specific gene transcription (The fine-tuning of the NF-B DNA binding activity).While in an inactivated state, NF-??B is located in the cytosol complexed with the inhibitory proteinI??B??. Through the intermediacy of integral membrane receptors, a variety of extracellular signals can activate the enzymeI??B kinase(IKK). IKK, in turn, phosphorylates the I??B?? protein, which results inubiquitination, dissociation of I??B?? from NF-??B, and eventual degradation of I??B?? by theproteasome. The activated NF-??B is then translocated into the nucleus where it binds to specific sequences of DNA called response elements (RE). The DNA/NF-??B complex then recruits other proteins such ascoactivatorsandRNA polymerase, which transcribe downstream DNA into mRNA. A large array of genesinvolved in different processes of the immune and inflammatory responses, such as TNF-??, IL-1??, IL-6, and IL-8, chemokines, adhesion molecules, clone stimulating factors, is mediated by NF-??B. In TNF-???Cinduced apoptosis, TRAF1, TRAF2, XIAP, c-IAP1, and c-IAP2 were identified as gene targets of NF-kB transcriptional activity. NF-??B Signaling Compound Library from SAB, a unique collection of 173 small molecules targeting NF-??B signaling, can be used for research in NF-??B signaling and high throughput screening and high content screening.
Storage	Powder or pre-dissolved DMSO solutions in 96 well plate with optional 2D barcodeShipped with blue ice; Stable for One year as powder, 6 months at - 20 ° C in DMSO or 12months at -80 ° C in DMSO

Application Details

Number of Compounds:173

Product Description

A unique collection of 173 compounds targeting NF-??B signaling for high throughput screening and high content screening; Effective tool for research in NF-??B signaling and related drug screening; Bioactivity and safety confirmed by pre-clinical research and clinical trials; Detailed compound information with structure, target, activity, IC50 value, and biological activity description; Structurally diverse, medicinally active, and cell permeable; NMR and HPLC validated to ensure high purity and quality;

Note: This product is for in vitro research use only