

03/25/2014

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Certificate of Analysis

Customer: Rain International**Sample Identification:**

Batch #: B-14096b

Date Received: 02/27/2014

Results:

Description	BL ID	Analysis	Inducer/ Stressor	Maximum inhibition (%)	Effective Concentration (µg/mL)
Soul (2oz Pouch), liquid, IN132773	14-0119	Cellular Anti-inflammatory Assay (NFκB)	TNF-α	33.14	953.33

Cellular Anti-inflammatory Assay (NFκB) determines the inhibition potential of a test material on expression/production level of NFκB in human cells. NFκB serves as a biomarker for inflammation

Method Description:

Cellular Anti-Inflammatory Assay (NFκB) determines the anti-inflammatory potential of a given material in human cells. NFκB (Nuclear Factor kappa B), a protein complex that is involved in cellular responses to stimuli such as stress and free radicals, is used as inflammation biomarker.

In this particular NFκB assay, Tumor necrosis factor alpha (TNF-α), a pleiotropic inflammatory cytokine, is introduced to the human cells to trigger cellular inflammation. If an anti-inflammatory material presents in the cellular environment, the material inhibits NFκB activation and the degree of inhibition can be monitored via NFκB expression. NFκB expression level of the human cells, treated with and without test materials, under the stressed condition are therefore monitored and compared. Maximum percentage of NFκB expression inhibition induced by tested materials is reported. The concentration used that induced the maximum inhibition of NFκB expression is also noted.

Released on behalf of Brunswick Laboratories by

Jin Ji, Ph.D.

Chief Technology Office

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