Docket #: S07-069

Reporter cell line for TGFbeta signaling

Stanford researchers have developed a cell line (MFB-F11) that can be used for an easy, sensitive, and specific bioassay to study the biological functions of Transforming Growth Factor-beta (TGF-beta). TGF-beta regulates key biological processes and has been implicated in many diseases. The MBF-F11 cells can be used for basic research or for screening drugs that target the TGF-beta signaling pathway. In addition, assays can be performed on a variety of biological samples, including cell culture supernatants, body fluids, or tissue homogenates, with or without prior denaturation of TGF-beta.

Applications

- Drug screening for compounds that target the TGF-beta signaling pathway
- Research basic research on the effects of TGF-beta on biological processes

Advantages

- Rapid
- Sensitive assay detected as little as 1pg/ml TGF-beta1
- Specific MFB-F11 cells were highly induced by TGF-beta, TGFbeta2 and TGF-beta3, but did not show induction with related family members or trophic factors
- **Simple** MFB-F11 cells can detect and quantify TGF-beta from biological specimens with or without prior denaturation of TGF-beta

Publications

• Tesseur I, Zou K, Berber E, Zhang H, Wyss-Coray T., "Highly sensitive and specific bioassay for measuring bioactive TGF-beta." BMC Cell Biol. 2006 Mar 20;7:15.

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