

**Table SI. Reagents, cell culture, and assay**

Product	Source
Adult HEK cells	Cell Applications, Inc.; San Diego, CA
Adult HDF cells	Cell Applications, Inc.; San Diego, CA
EpiVita defined medium	Cell Applications, Inc.; San Diego, CA; catalog #141DGM-500
Growth medium	Cell Applications, Inc.; San Diego, CA; catalog #116-500
Human EpiVita basal medium	Cell Applications, Inc.; San Diego, CA; catalog #140-500
Recombinant human cytokines (OSM, LIF, IL-31, IL-13, IL-17A, TGFβ)	R&D Systems; Minneapolis, MN, USA
Recombinant human cytokine IL-4	Peptotech; Rocky Hill, NJ, USA
Lysophosphatidic acid	Tocris Bioscience, Bristol, UK
HDF basal medium	Cell Applications, Inc.; San Diego, CA; catalog #115-500
HEK cell basal medium	Cell Applications, Inc.; San Diego, CA
DuoSet ELISA (human MCP-1/CCL2)	R&D Systems; Minneapolis, MN, USA
Anti-human OSMRβ antibody (KPL-716)	Kiniksa Corp., Lexington, MA, USA
Anti-human IL-31Rα	Genscript; Piscataway, NJ, USA
Ultra-LEAF purified human IgG4 isotype antibody (in vitro neutralization)	BioLegend; San Diego, CA, USA
PureLink RNA MiniKit	Invitrogen, Life Technologies; Minneapolis, MN, USA
Nanostring	Nanostring Technologies, Seattle, WA, USA
Odyssey® Blocking Buffer	LI-COR, Inc., Lincoln, NE, USA
Primary antibodies pSTAT1, pSTAT3, pSTAT6, STAT1, and STAT3	Cell Signaling Technology, Danvers, MA, USA
Anti-rabbit secondary antibodies	LI-COR, Inc., Lincoln, NE, USA
Odyssey® Imaging Systems	LI-COR, Inc., Lincoln, NE, USA

HEK: human epidermal keratinocytes; HDF: human dermal fibroblasts; OSM: Oncostatin M; LIF: leukemia inhibitory factor; IL: interleukin.