**Introduction**

Madindolines are noncytotoxic indole alkaloids originally isolated from a fermentation broth of *Streptomyces nitrosporeus* K93-0711 (1, 2). (+)-Madindoline A (MadA; MDL-A) and (+)-Madindoline B (MadB; MDL-B) are diastereomers with MadA being the more potent compound. MadA binds competitively but noncovalently to the extracellular domain of the membrane glycoprotein gp130 and inhibits the homodimerization of the trimeric IL-6/IL-6R/gp130 or the IL-11/gp130 complex (1-3), thus inhibiting activation of the JAK/STAT signal transduction pathway (4). MadA inhibits IL-6 and IL-11-induced osteoclastogenesis *in vitro* in a dose dependent manner and postmenopausal osteoporosis *in vivo*, by a mechanism different from that of 17β-estradiol (5). IL-6 activity is known to cause various diseases such as cancer cachexia (6), Castleman’s disease (7), Crohn’s disease (8), rheumatoid arthritis (9), hypercalcemia (10), and multiple myeloma (11). Madindolines are no longer available from natural sources due to mutation of the originating bacterial strain. Thus, synthetic routes have been developed to produce madindolines (12). Recently analogs of madindolines have been synthesized as potent IL-6 inhibitors (13).

**FOR LITERATURE REFERENCES SEE BACKCOVER**

**FIGURE 1:** Madindoline A inhibits homodimerization of the two trimeric IL-6 / IL-6R / gp130 complexes by binding to site 2 of gp130.

**MANUFACTURED BY**

Kitasato Institute, Tokyo.
Monoclonal Antibodies to Phosphorylated STAT1 & STAT3

**MAB to STAT1 (human) (phosphorylated) (pSer727) (PSM1)**

**ALX-804-477-C100**

CLONE: PSM1. ISOYPE: Mouse IgG1. IMMUNOGEN: Synthetic peptide corresponding to aa 721-733 of human STAT1. SPECIFICITY: Recognizes human STAT1. APPLICATION: IB, WB.

**MAB to STAT1 (human) (phosphorylated) (pSer727) (12C5)**

**NT-0176-100**

CLONE: 12C5S. ISOYPE: Mouse IgG1. IMMUNOGEN: Synthetic peptide corresponding to a portion of STAT1 phosphorylated at Ser727. SPECIFICITY: Recognizes human STAT1 phosphorylated at Ser727. Does not cross-react with non-phosphorylated STAT1. APPLICATION: WB.

**MAB to STAT3 (phosphorylated) (pTyr705) (9E12)**

**ALX-804-180-C100**

CLONE: 9E12. ISOYPE: Mouse IgG1. IMMUNOGEN: Synthetic peptide corresponding to a portion of STAT3 phosphorylated at Tyr705. SPECIFICITY: Recognizes the -AAPLYKTLMT motif of activated human, mouse and dog STAT3 phosphorylated at Tyr705. Does not cross-react with non-phosphorylated form of STAT3 nor with unrelated non-phosphorylated proteins. APPLICATION: IHC, ICC, IP, WB.

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