

Supplemental Data

Table S1: Primers used for PCR amplification of hOSM gene and conducting point mutations thereafter.

Gene / Mutation		Primers (5' - 3')
hOSM	FWD	CTGGTTCCGCGTGGATCCGCGGCTATAGGCAGC
	REV	CAGTCACGATGAATTCGACTATCTCCGGCTCCG
AGR to AGA	FWD	CACGAAGGCTGGCGCGGGGCTCTCAG
	REV	CTGAGAGGCCCGCGGCAGCCTTCGTG
FXXK to AXXA	FWD	CCCTGCCTCGGATGCTGCTCAGCGCGCTGGAGGGCTG
	REV	CAGCCCTCCAGCGCGCTGAGCAGCATCCGAGGCAGGG
OSM-M1 (Round 1)	FWD	GACTTAGAGCAGCGCCTCGGCGCGCCCAGGATTTGGAGAGGT
	REV	ACCTCTCCAAATCCTGGGGCGCGCCGAGGCGCTGCTCTAAGTC
OSM-M1 (Round 2)	FWD	CTCGGCGGCCCTCTGGGCTGAAC
	REV	G TTCAGCCCAGAGGGCGCGCCGAG
OSM-M2 (Round 1)	FWD	CAGCGCCTCGGCGGGGCTCTGGGCTGAAC
	REV	G TTCAGCCCAGAGCCCCGCGAGGCGCTG
OSM-M2 (Round 2)	FWD	CCTCGGCGGGGCAACATCGAGGACTT
	REV	AAGTCCTCGATGTTGCCCGCCGAGG
OSM-M3 (Round 1)	FWD	CGACTTAGAGCAGCGCAACATCGAGGACTTGG
	REV	CCAAGTCCTCGATGTTGCGCTGCTCTAAGTCG

Figure S1: Amino acid sequence of human OSM. All alpha helical regions in OSM are highlighted in gray with the helices A (Y10-I37), B (G66-Q90), C (E106-L131) and D (A159-S185) indicated. The cryptic thrombin cleavage site 'AGR' between helix C and helix D is highlighted in a box.

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                                Helix A
1  AAIGSCSKEYRVLLGQLOKQTDLMQDTSRLDPYIRIQGLDVPKLREHCRERPGAFPSEE
                                Helix B                                Helix C
61  TLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEKLMARPNILG
                                Helix D
121 LRNNIYCMAQLLDNSDTAEPTKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRFMHSV
181 GRVFSKWGESPNRSRR
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Figure S2: SDS-PAGE analysis of hOSM with or without the 'AGA' modification after subjection to thrombin cleavage. Lane 1 – hOSM; Lane 2 – hOSM with AGA modification.

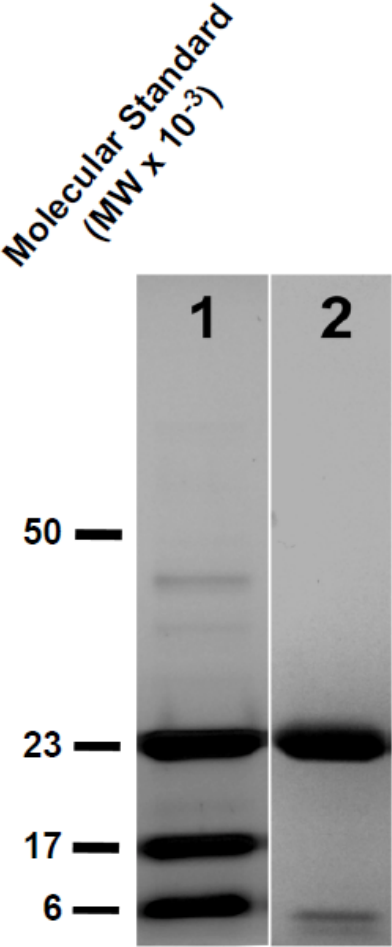


Figure S3: Human müller cells express LIFR, gp130 while A375 melanoma cells express OSMR, gp130 on their cell surface A) Activation of STAT3 in human retinal Müller cells in response to different doses of LIF and OSM B) Activation of STAT3 in human retinal Müller cells in response to different doses of LIF and OSM in the presence or absence of various doses of LIF05 (LIFR antagonist) C) Activation of STAT3 in A375 melanoma cells in response to various doses of LIF and OSM.

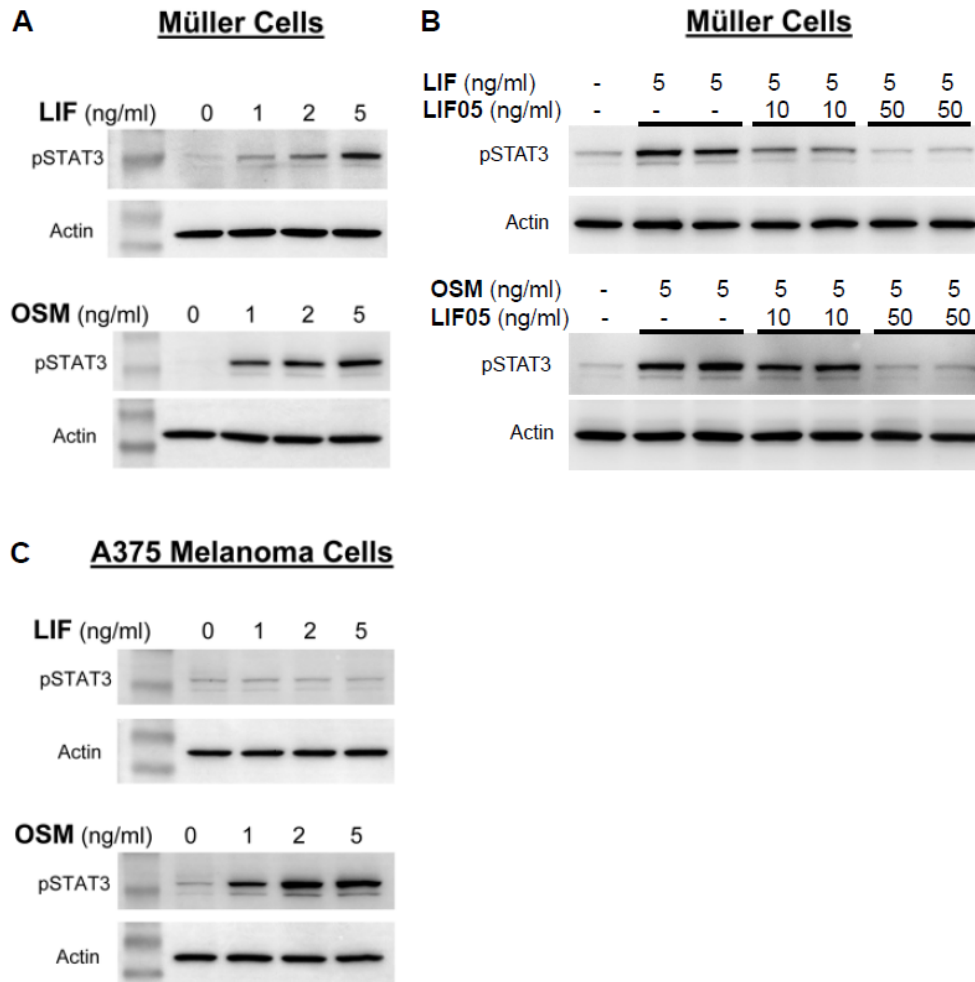


Figure S4: Kinetic analysis of soluble OSMR interaction with LIF, OSM-WT, OSM-M1 or OSM-M2

