Supplementary information 3:

SPR analysis of the interactions between pITIM-containing peptides derived from the intracellular domain of MAFA and the SH2/PTB domains of SHIP, Shc, Dok-1 and RasGAP.

Synthetic MAFA peptides (LDNSIYSTLEL, LDNSIpYSTLEL; both biotinylated at their N-termini) were immobilized on streptavidin-coated sensor chips (Sensor Chip SA, Biacore AB, Uppsala, Sweden) at 25°C, at a flow rate of 5 μl/min in HEPES-buffered saline (HBS) (10 mM HEPES, 150 mM NaCl, 3.4 mM EDTA, 0.005% surfactant P20, pH 7.4). Ligand binding was monitored following injection (250 μl/sample) of a respective GST-SH2/PTB domain fusion protein (previously dialyzed against HBS) at different concentrations with a flow rate of 20 μl/min in HBS running buffer. Dissociation was monitored during subsequent washing of the chip with HBS running buffer for 3600 s with a flow rate of 20 μl/min. Chip regeneration was performed by injection of 10 μl of HBS running buffer supplemented with 0.01% SDS. SPR measurements employed the BIAcore 2000 apparatus (Pharmacia Biosensor AB, Uppsala, Sweden). All real time curves were best fitted by two-state reaction model and all kinetic and affinity parameters were calculated using the BIAevaluation 3.0.2 software and plotted into the table.

pY-ITIM+PAAP					
Protein	K_d (nM)	k_{on1} (10^4 $M^{-1}.s^{-1}$)	k_{off1} (10^{-3} $.s^{-1}$)	k_{on2} ($10^3.s^{-1}$)	k_{off2} (10^{-5} $.s^{-1}$)
GST-**SHIP** .SH2	**1.02** +/- 0.02	7.4 +/- 1.1	1.9 +/- 0.3	1.4 +/- 0.2	5.2 +/- 0.3
GST-**Dok-1** .PTB	not detectable				
GST-**RasGAP** .SH2	not detectable				
GST-**Shc** .SH2.PTB	not detectable				