

**Nirula et al.**, <http://www.jem.org/cgi/content/full/jem.20051715/DC>

**Ras activation assays.** Activation of Ras in D10 T cells was analyzed by a RasGTP pull-down assay (with 15  $\mu$ l of Raf-1 RBD agarose and  $10 \times 10^6$  cells for each time point) according to the manufacturer's instructions (Upstate Biotechnology) as described previously (Roose, J.P., M. Mollenauer, V.A. Gupta, J. Stone, and A. Weiss. 2005. *Mol. Cell. Biol.* 25:4426–4441). Cells were loaded with 1  $\mu$ g/ml anti-CD3 $\epsilon$  and anti-CD28 (1:500) in the presence of DMSO (control) or H89 (10  $\mu$ M) on ice for 30 min. Stimulations were induced by adding an equal volume of PBS at 37°C with crosslinking antibody (goat anti–mouse and goat anti–hamster [10  $\mu$ g/ml]).

**Measurement of intracellular Ca<sup>2+</sup> levels.** D10 T cells were loaded with the Ca<sup>2+</sup> indicator Fluo-3-AM and with 1  $\mu$ g/ml anti-CD3 $\epsilon$  and anti-CD28 (1:500) in the presence of DMSO (control) or H89 (10  $\mu$ M) on ice for 30 min as described previously (Roose, J.P., M. Mollenauer, V.A. Gupta, J. Stone, and A. Weiss. 2005. *Mol. Cell. Biol.* 25:4426–4441). Cells were subsequently washed and warmed to 37 °C for 5 min before stimulation by with crosslinking with goat anti–mouse and goat anti–hamster (10  $\mu$ g/ml) and analyzed by FACS.