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On the cover: Butyrophilin 3A1 structure with an IgV:IgC extracellular dimer, a B30.2 intracellular dimer, and a model of the coiled coil domain. (*E*)-hydroxy-2-methyl-butenyl pyrophosphate produced by microbes (*left*) and endogenous isopentenyl pyrophosphate (*right*) bind to the B30.2 domain rather than the IgV site, suggesting that butyrophilin 3A1 functions as a sensor molecule. Wang, H., and C. T. Morita. 2015. Sensor function for butyrophilin 3A1 in prenyl pyrophosphate stimulation of human V γ 2V δ 2 T cells. *J. Immunol.* 195: 4583–4594.

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