Variable dimerization of the Ly49A natural killer cell receptor results in differential engagement of its MHC class I ligand.
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Natural killer (NK) cells play a vital role in the detection and elimination of virally infected and tumor cells. The interaction between NK cells and their target cells is mediated by a variety of activating and inhibitory receptors. Among these, the Ly49 family of receptors is particularly important because it recognizes MHC class I molecules associated with viral infections.

The present study investigated the variable dimerization of the Ly49A receptor. The results showed that the unbound Ly49A exists predominantly in the open state, as indicated by NMR results. This dimerization is thought to contribute to the differential engagement of MHC class I ligands, allowing NK cells to selectively kill virus-infected cells while sparing uninfected cells.

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