NPEC-DHPG and NPEC-ACPD

The NPEC cages are stable to hydrolysis, unlike many caged neuroactive amino acids that utilise nitrobenzyl or nitrophenyl photochemistry. They are efficient for near-UV photolysis but have slower photolysis, with 'dark' rates about 10-20 s^{-1} at pH 7.4. The properties of NPEC-glutamate are described in detail by Corrie *et al* (1993) who describe its use at pH 6 to mimic synaptic activation at the squid giant synapse. The DHPG and ACPD cages have been tested at mGluR1 receptors and for interference with synaptic transmission. Both activate mGluR1 efficiently and neither interfere with glutamatergic transmission prior to photolysis.

References

Corrie *et al* (1993) Postsynaptic activation at the squid giant synapse by photolytic release of L-glutamate from a 'caged' L-glutamate. J.Physiol. ***465*** 1.