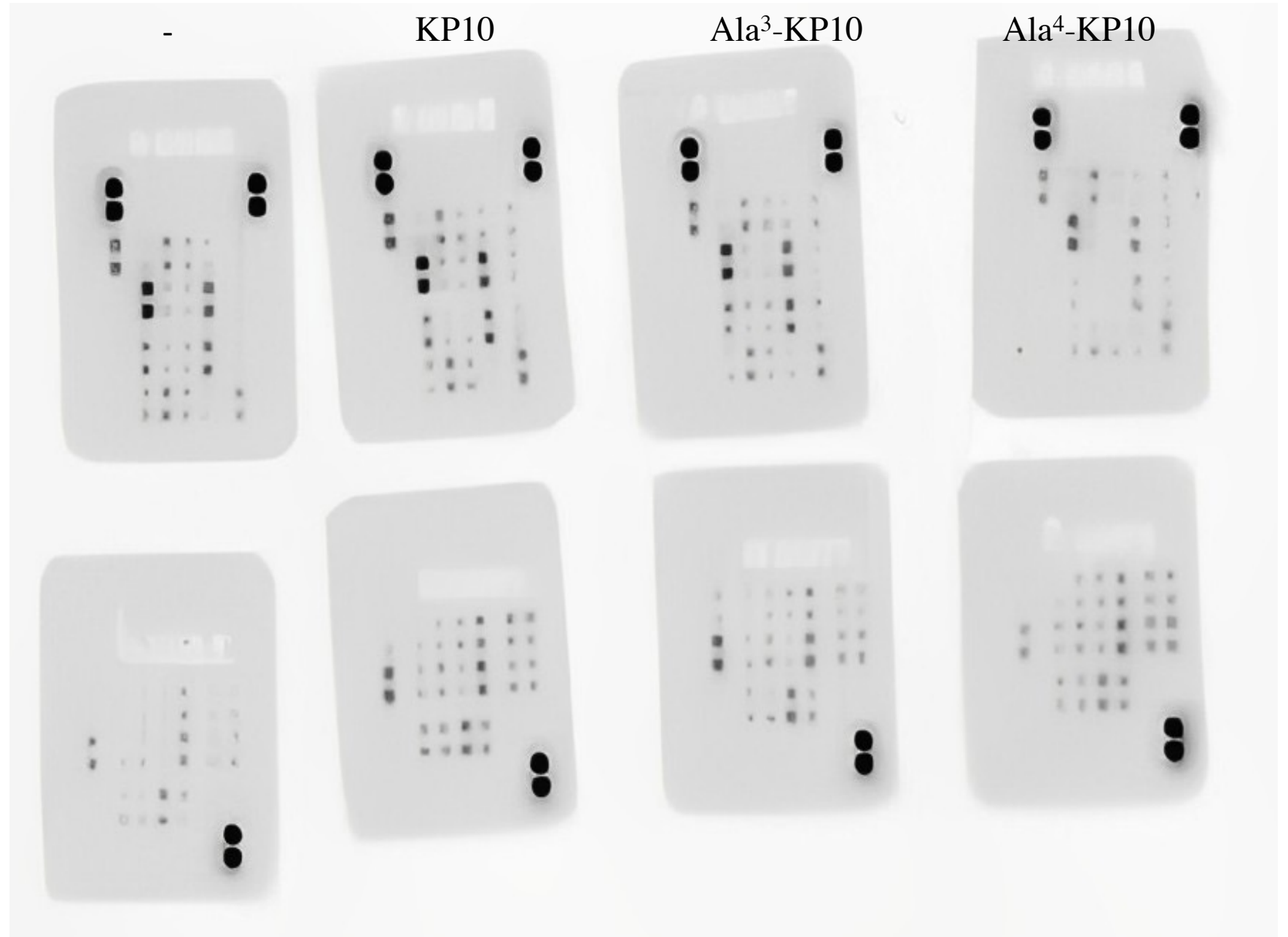


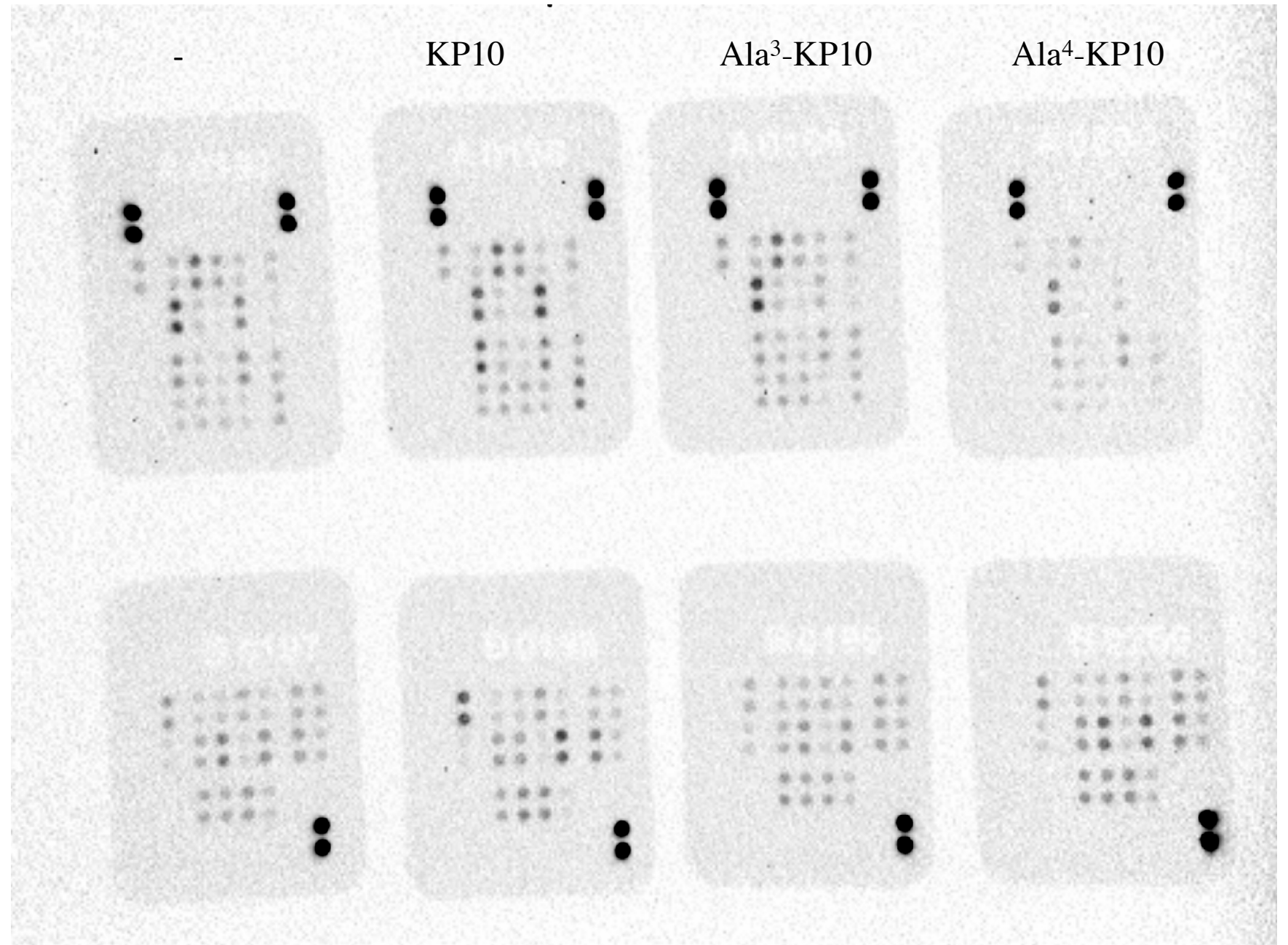
Supplementary Data

Signaling Pathway	KP10			Ala ³ -KP10				Ala ⁴ -KP10				
	EC ₅₀ (M)	pEC ₅₀	E _{max} (%)	EC ₅₀ (M)	Fc	pEC ₅₀	E _{max} (%)	EC ₅₀ (M)	Fc	pEC ₅₀	E _{max} (%)	
Gq Protein Family	G _q	1.52x10 ⁻⁸	7.87	100	8.74x10 ⁻⁸	5.76	7.07	107.25	2.23x10 ⁻⁷	2.55	6.67	103.67
	G ₁₁	4.75x10 ⁻⁸	7.42	100	2.21x10 ⁻⁷	4.65	6.68	102.20	4.54x10 ⁻⁷	2.05	6.35	106.42
	G ₁₄	4.12x10 ⁻⁸	7.48	100	1.76x10 ⁻⁷	4.28	6.78	100.16	3.54x10 ⁻⁷	2.00	6.45	97.69
	G ₁₅	3.10x10 ⁻⁸	7.57	100	1.52x10 ⁻⁷	4.92	6.87	99.45	3.60x10 ⁻⁷	2.36	6.47	100.80
Gi Protein Family	G _{i1}	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G _{i2}	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G _{i3}	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G _{oA}	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G _{oB}	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G _z	1.63x10 ⁻⁷	6.87	100	6.46x10 ⁻⁷	3.96	6.24	94.02	1.10x10 ⁻⁶	1.70	6.04	84.68
	G _s	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G ₁₂	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	G ₁₃	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
	β-arrestin1	5.92x10 ⁻⁷	6.51	100	1.19x10 ⁻⁶	2.01	6.37	69.04	1.30x10 ⁻⁵	10.86	5.53	69.09
β-arrestin2	3.75x10 ⁻⁷	6.43	100	1.43x10 ⁻⁶	3.82	6.00	63.86	2.58x10 ⁻⁶	1.79	5.60	78.99	

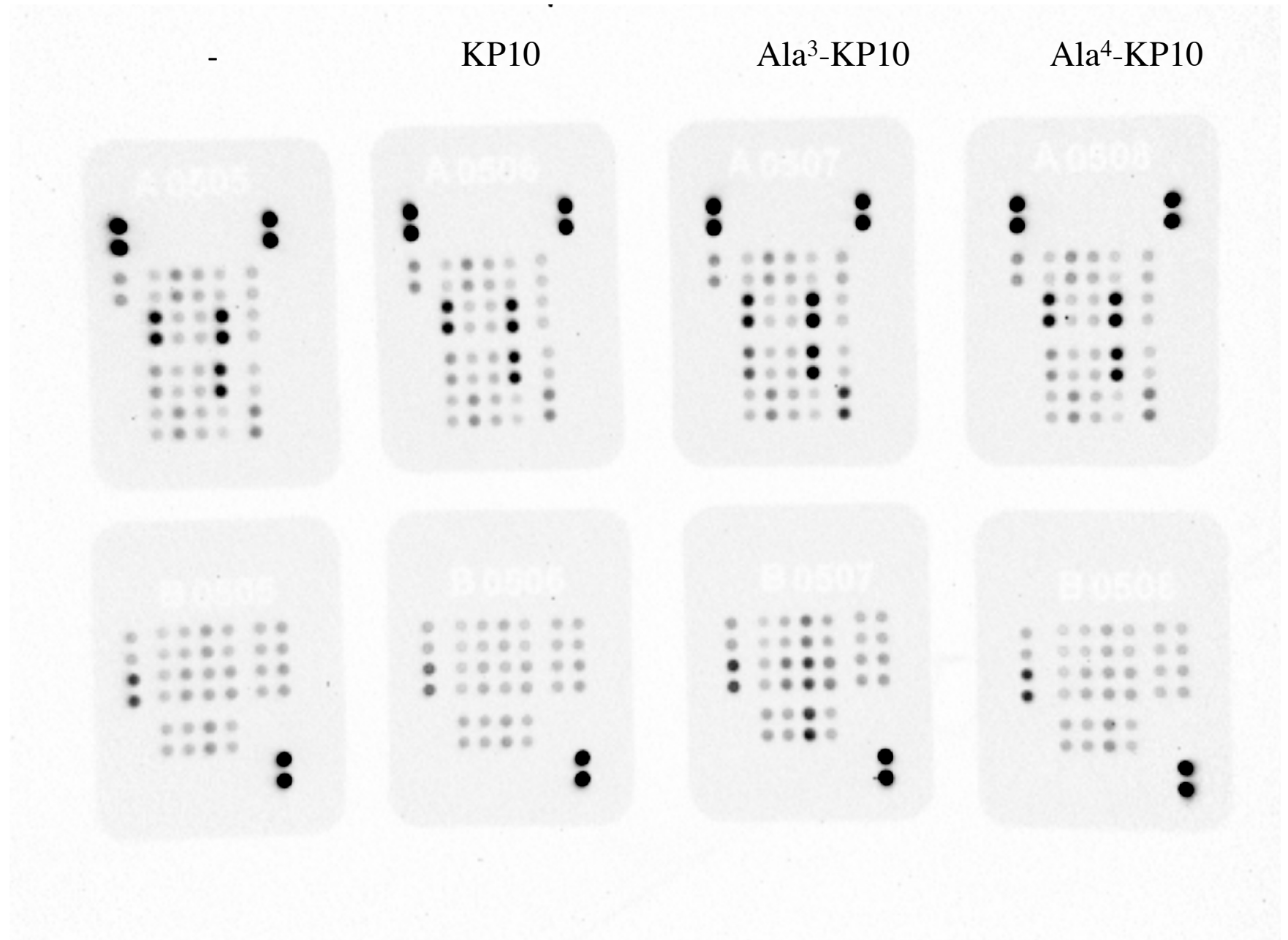
Table S1: Potency of KP10 and its analogs in activating the different signaling pathways. EC₅₀ and pEC₅₀ values are presented as mean from 4 experiments. Fc is the fold change of EC₅₀ values for the analogs relative to the EC₅₀ value obtained for KP10. E_{max} was represented as a percentage, with the reference (KP10) being 100%. NQ, Not Quantifiable.



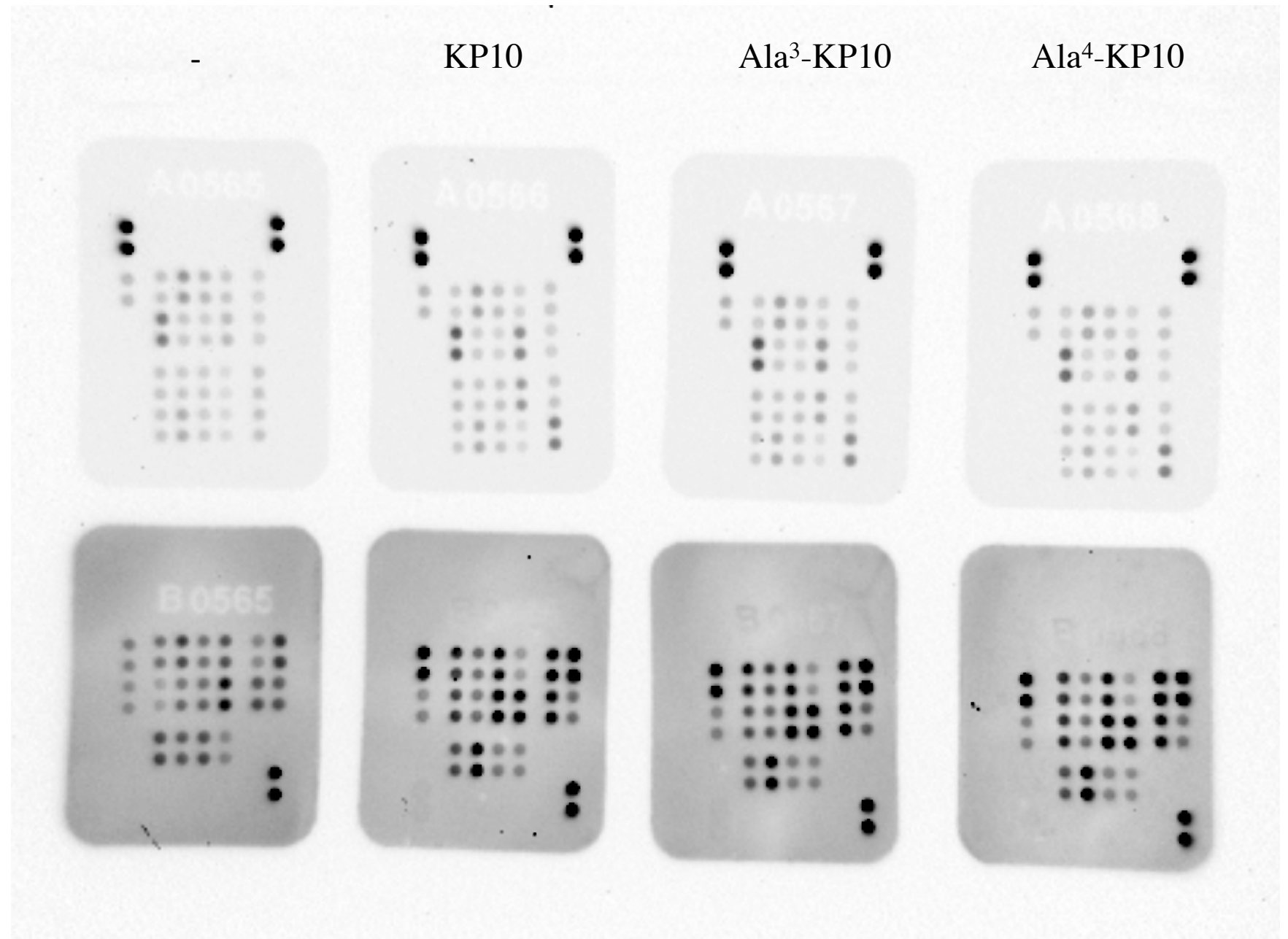
Experiment (n=1) conducted in AGS cells, stimulated with KP10 and analogues.



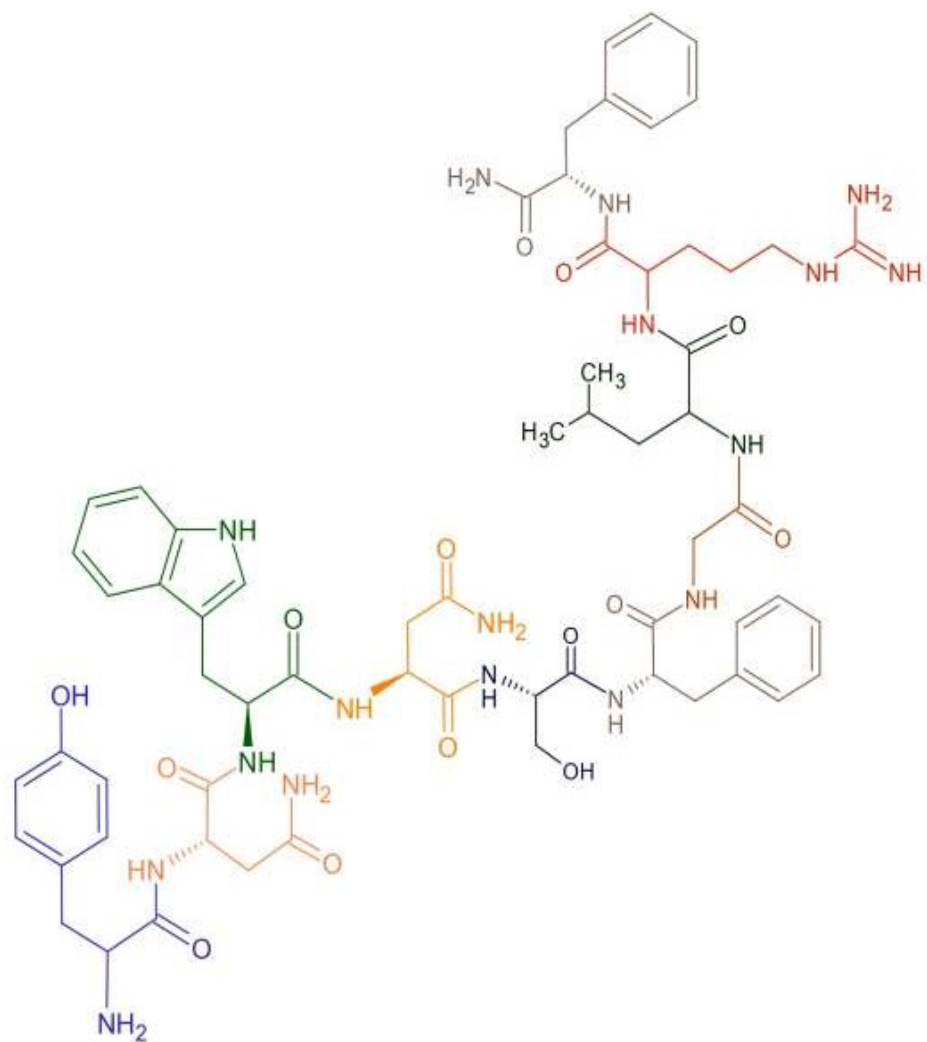
Experiment (n=1) conducted in PC3 cells, stimulated with KP10 and analogues.



Experiment (n=1) conducted in MCF-7 cells, stimulated with KP10 and analogues.

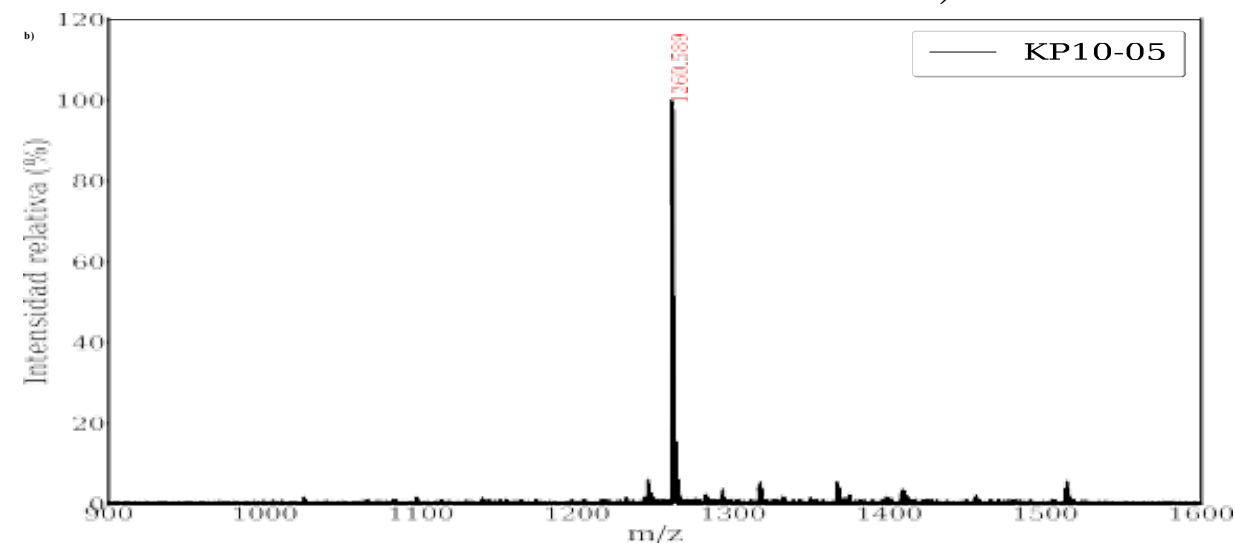


Experiment (n=1) conducted in HeLa cells, stimulated with KP10 and analogues.

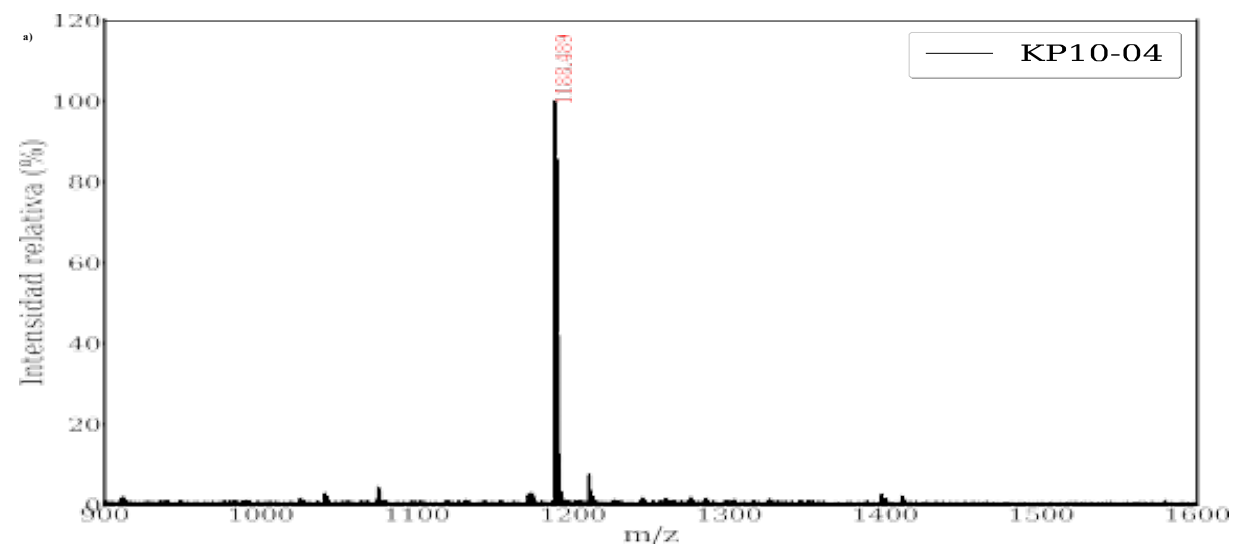


Chemical structure of KP10, the condensed IUPAC system is H-Tyr-Asn-Trp-Asn-Ser-Phe-Gly-Leu-Arg-Phe-NH₂.

b) Ala⁴-KP10



a) Ala³-KP10



Mass spectra, signals in red indicate the molecular ion of the respective peptide. a) Spectrum of peptide Ala³-KP10. b) Spectrum of peptide Ala⁴-KP10.