

**Supplementary Table 3. Data description for testing H-RACS on unexplored drug combinations and cell lines.**

<b>Category</b>	<b>Data usage</b>	<b>Combinational scenarios</b>	<b>Drug combinations</b>	<b>Cell lines</b>
A&O dataset		33,574	1,380	116
unexplored drug combinations	Training	22,320	920	116
	External test	11,254	460	116
unexplored cell lines	Training	22,680	1380	77
	External test	10,894	1378	39