Supporting Information

Discovery of 1-[2-fluoro-4-(1*H*-pyrazol-1-yl)phenyl]-5-methoxy-3-(1-phenyl-1*H*-pyrazol-5-yl)pyridazin-4(1*H*)-one (TAK-063), a Highly Potent, Selective, and Orally Active Phosphodiesterase 10A (PDE10A) Inhibitor

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S2 X-ray data collection and refinement statistics for the crystal structures of PDE10A in complex with compounds **1**, **20a**, and **27h**.

Table 1. X-ray data collection and refinement statistics

[a]Rsym = ΣhΣj |<I(h)> - I(h)j | / ΣhΣj <I(h)>, where <I(h)> is the mean intensity of symmetry-related reflections. [b]R-value = Σ | |Fobs| - |Fcalc| | / Σ |Fobs|. Rfree for 5% of reflections excluded from refinement. Values in parentheses are for the highest resolution shell.

	1	20a	27h
Data Collection			
X-ray source	**ALS BL5.0.3**	**SPring-8 BL41XU**	**ALS BL5.0.3**
Wavelength (Å)	**0.97645**	**1.0**	**0.9700**
Space group	**$P2_12_12_1$**	**$P2_12_12_1$**	**$P2_12_12_1$**
Unit cell dimensions (Å)	**a=49.7, b=81.7, c=161.2**	**a=49.9, b=81.8, c=162.2**	**a=49.7, b=81.7, c=161.5**
Resolution (Å)	**2.45**	**2.70**	**2.0**
Unique reflections	**24958**	**18737**	**45004**
Redundancy	**5.8**	**5.0**	**5.6**
Completeness (%)	**99.45 (96.3)**	**97.7 (99.3)**	**99.3 (100.0)**
I/σ(I)	**10.4 (1.1)**	**14.4 (2.5)**	**14.5 (2.0)**
R_{sym}[a]	**0.146**	**0.118**	**0.111**
Refinement			
Reflections used	**23639**	**17777**	**42757**
RMS Bonds (Å)	**0.006**	**0.007**	**0.007**
RMS Angles (°)	**1.096**	**1.146**	**1.172**
Average B value ($Å^2$)	**47.8**	**61.5**	**31.0**
R-value[b]	**0.1988**	**0.203**	**0.181**
R_{free}[b]	**0.2498**	**0.261**	**0.215**