# Benchmarking using ADME Profiler –
*Choose faster. Choose wiser.*

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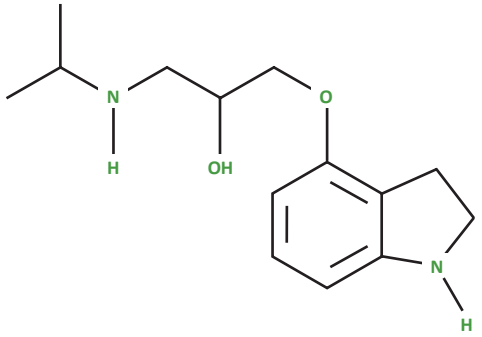
## MODEL COMPOUND/DRUG

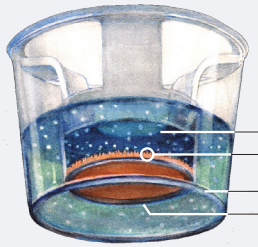



| Generic Name | Pindolol |
|---|---|
| Brand Name | Viskazide, Visken |
| Innovator | Novartis |
| Type | Small Molecule |
| FDA Approval | 3 September 1982 |

| Generic Name | Pindolol |
|---|---|
| Therapeutic class | Beta-blocker |
| Formula | C14H20N2O2 |
| MW | 248.32 |
| #Rotatable bonds | 6 |
| #H-bond acceptors | 3 |
| #H-bond donors | 3 |
| TPSA | 57.28 |
| Solubility (mg/mL) | 0.869 |
| pKa | 9.67 |

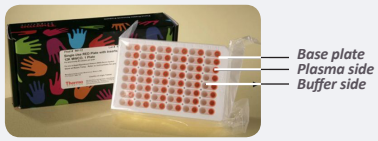

*References:*
*Pindolol Prescribing Information*
*https://pubchem.ncbi.nlm.nih.gov/compound/4828#section=Absorption-Distribution-and-Excretion*


## ADME PROFILER ASSAYS




| | |
|---|---|
| Caco-2 Unidirectional Permeability (x10-6 cm/sec) pH 6.5/pH 7.4 | 4.09 ± 1.38 |
| Recovery (%) | 89.65 ± 4.19 |
| Caco-2 Unidirectional Permeability (x10-6 cm/sec) pH 7.4/pH 7.4 | 17.00 ± 4.28 |
| Recovery (%) | 91.99 ± 6.81 |

| Human | | | Rat | | |
|---|---|---|---|---|---|
| %Remaining (60 min) | Half-life (min) | CLint (mL/min/mg protein) | %Remaining (60 min) | Half-life (min) | CLint (mL/min/mg protein) |
| **98.4** | **> 60** | **< 0.0231** | **5.54** | **98.4** | **98.4** |



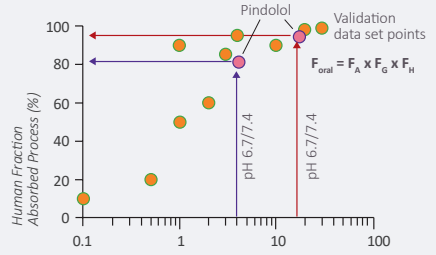

| | |
|---|---|
| %Bound human plasma | 39.2 |
| %Bound rat plasma | 54.6 |

| % Bound (equilibrium) | Kd (Dissociation rate constant) | In-vivo ADME effects |
|---|---|---|
| High | Slow | Restrictive |
| High | Fast | Permissive |
| Low | Slow | Permissive |
| Low | Fast | Permissive |

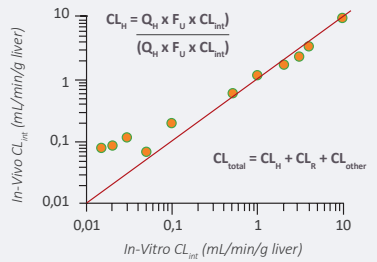
*Restrictive: Binding determines the overall compound disposition;*
*Permissive: Effect of protein binding on disposition is little.*

## IVIVE

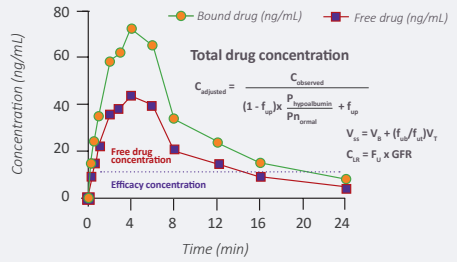
**Oral Biovailability Reported: 87-92% (ref: Drugbnk)**
**Predicted value from data: 82-95%**




**Well Stirred Model**




**Human Concentration-Time Profile**




ADME INPUT FOR CANDIDATE SELECTION