**Table 1. in vitro pharmacologic activity of co-formulation**

<table>
<thead>
<tr>
<th>Formulation</th>
<th>% Activity vs. LAPS-Insulin 115</th>
<th>% Activity vs. LAPS-CA-Exendin-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAPS-Insulin 115 only</td>
<td>100%</td>
<td>-</td>
</tr>
<tr>
<td>LAPS-CA-Exendin-4</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Co-formulation (1:2)</td>
<td>117%</td>
<td>106.7%</td>
</tr>
<tr>
<td>Co-formulation (1:1)</td>
<td>98.8%</td>
<td>101.2%</td>
</tr>
</tbody>
</table>

**Drug interference**

- No interference with the intrinsic activity of individual drugs.

**RESULTS**

**Weekly Potential of LAPS-Insulin 115 + LAPS-CA-Exendin-4 Combination**

**Figure 1.** PK comparison of weekly LAPs products vs. daily comparator in rats (mEq/s, Q3D).

**Figure 2.** Multiple dose PK of co-formulated LAPS-Insulin 115 and LAPS-CA-Exendin-4 in normal rats (mEq/s, Q3D).

**Figure 3.** PK profile of co-formulation vs. individual drug in normal rats (mEq/s, single).

**Figure 4.** HbA1c (A) and Body weight changes (B) by combination treatment in db/db mice (mEq/s, Q3D, 5 weeks).

**Figure 5.** HbA1c (A) and body weight changes (B) daily vs. weekly combination in DIO/STZ rats (mEq/s, Q3D or Q1D, 4 weeks).

**CONCLUSIONS**

- LAPS-Insulin 115 and LAPS-CA-Exendin-4 combination showed superior efficacy compared with daily combination without additional BWG.

**REFERENCES**

3. ND Perinephrosis (2016) 3: 505-10

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