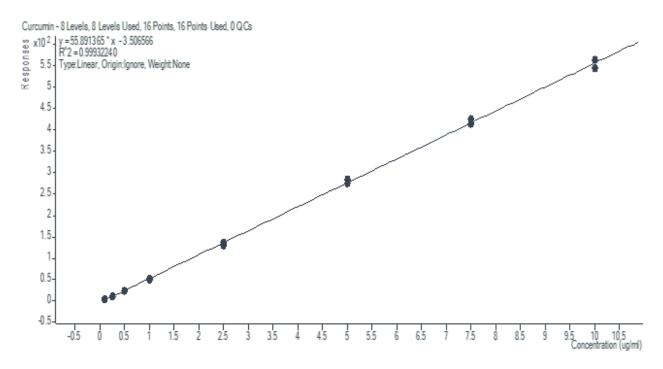
# **Annex 2: Curcuminoid validation data**

### **Curcumin**

#### **Calibration**



#### **Recovery and repeatability**

| Sample                | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| Low spike sample 1    | 9,899                         | 9,217                         | 9,203                         |
| Low spike sample 2    | 8,983                         | 9,617                         | 9,093                         |
| Low spike sample 3    | 8,531                         | 8,906                         | 9,180                         |
| Low spike sample 4    | 8,612                         | 8,853                         | 9,416                         |
| Low spike sample 5    | 8,716                         | 8,632                         | 9,816                         |
| Low spike sample 6    | 8,657                         | 9,230                         | 9,688                         |
| Low spike sample 7    | 8,631                         | 8,703                         | 9,695                         |
| Average               | 8,861                         | 9,023                         | 9,442                         |
| Recovery              | 98%                           | 98%                           | 105%                          |
| Repeatability (RSD)   | 5.4%                          | 1.1%                          | 3.1%                          |
| Medium spike sample 1 | 88,083                        | 88,309                        | 90,267                        |
| Medium spike sample 2 | 86,934                        | 88,557                        | 89,552                        |
| Medium spike sample 3 | 86,023                        | 86,293                        | 87,761                        |
| Medium spike sample 4 | 86,003                        | 87,335                        | 89,793                        |
| Medium spike sample 5 | 88,285                        | 89,001                        | 89,365                        |
| Medium spike sample 6 | 90,875                        | 88,664                        | 90,956                        |

| Sample                | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| Medium spike sample 7 | 90,134                        | 88,336                        | 90,049                        |
| Average               | 88,048                        | 88,071                        | 89,678                        |
| Recovery              | 98%                           | 98%                           | 100%                          |
| Repeatability (RSD)   | 2.2%                          | 1.1%                          | 1.1%                          |
| High spike sample 1   | 180,540                       | 178,114                       | 179,583                       |
| High spike sample 2   | 183,548                       | 180,893                       | 182,099                       |
| High spike sample 3   | 180,048                       | 178,661                       | 183,678                       |
| High spike sample 4   | 178,903                       | 176,628                       | 178,446                       |
| High spike sample 5   | 178,456                       | 176,339                       | 175,942                       |
| High spike sample 6   | 178,537                       | 176,395                       | 177,756                       |
| High spike sample 7   | 176,755                       | 175,586                       | 180,721                       |
| Average               | 179,541                       | 177,516                       | 179,747                       |
| Recovery              | 100%                          | 99%                           | 100%                          |
| Repeatability (RSD)   | 1.2%                          | 1.0%                          | 1.5%                          |

# Bisdemethoxycurcumin

### Calibration

## Recovery and repeatability

| Sample             | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|--------------------|-------------------------------|-------------------------------|-------------------------------|
| Low spike sample 1 | 10,055                        | 8,642                         | 9,529                         |
| Low spike sample 2 | 9,389                         | 9,076                         | 9,542                         |
| Low spike sample 3 | 9,583                         | 8,575                         | 9,586                         |
| Low spike sample 4 | 9,356                         | 8,941                         | 9,199                         |
| Low spike sample 5 | 9,644                         | 8,630                         | 9,546                         |
| Low spike sample 6 | 9,632                         | 9,064                         | 9,433                         |
| Low spike sample 7 | 9,675                         | 8,492                         | 9,603                         |

| Sample                | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| Average               | 9,619                         | 8,774                         | 9,491                         |
| Recovery              | 107%                          | 97%                           | 105%                          |
| Repeatability (RSD)   | 2.4%                          | 2.8%                          | 1.5%                          |
| Medium spike sample 1 | 84,061                        | 90,443                        | 87,706                        |
| Medium spike sample 2 | 83,835                        | 91,551                        | 89,092                        |
| Medium spike sample 3 | 85,270                        | 92,213                        | 86,301                        |
| Medium spike sample 4 | 87,098                        | 90,044                        | 87,764                        |
| Medium spike sample 5 | 85,970                        | 90,827                        | 90,689                        |
| Medium spike sample 6 | 88,088                        | 92,214                        | 89,824                        |
| Medium spike sample 7 | 85,824                        | 93,060                        | 89,137                        |
| Average               | 85,724                        | 91,662                        | 88,645                        |
| Recovery              | 95%                           | 102%                          | 98%                           |
| Repeatability (RSD)   | 1.8%                          | 1.4%                          | 1.7%                          |
| High spike sample 1   | 181,848                       | 185,629                       | 179,314                       |
| High spike sample 2   | 185,518                       | 191,136                       | 182,990                       |
| High spike sample 3   | 182,230                       | 190,187                       | 181,666                       |
| High spike sample 4   | 182,972                       | 185,342                       | 180,509                       |
| High spike sample 5   | 182,480                       | 186,815                       | 182,336                       |
| High spike sample 6   | 181,894                       | 180,271                       | 182,455                       |
| High spike sample 7   | 182,171                       | 183,198                       | 184,728                       |
| Average               | 182,730                       | 186,083                       | 182,000                       |
| Recovery              | 102%                          | 103%                          | 101%                          |
| Repeatability (RSD)   | 0.7%                          | 2.0%                          | 1.0%                          |

# Demethoxycurcumin

#### Calibration

## Recovery and repeatability

| Sample             | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|--------------------|-------------------------------|-------------------------------|-------------------------------|
| Low spike sample 1 | 11,016                        | 8,567                         | 9,527                         |
| Low spike sample 2 | 10,113                        | 8,704                         | 9,472                         |
| Low spike sample 3 | 10,173                        | 8,156                         | 9,239                         |
| Low spike sample 4 | 9,957                         | 8,663                         | 8,534                         |

| Sample                | Batch 1 concentration (mg/kg) | Batch 2 concentration (mg/kg) | Batch 3 concentration (mg/kg) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| Low spike sample 5    | 10,611                        | 7,909                         | 9,457                         |
| Low spike sample 6    | 10,452                        | 8,168                         | 9,463                         |
| Low spike sample 7    | 10,327                        | 7,999                         | 9,476                         |
| Average               | 10,378                        | 8,309                         | 9,310                         |
| Recovery              | 115%                          | 92%                           | 103%                          |
| Repeatability (RSD)   | 3.4%                          | 4.0%                          | 3.8%                          |
| Medium spike sample 1 | 82,492                        | 90,081                        | 87,906                        |
| Medium spike sample 2 | 91,684                        | 91,188                        | 90,377                        |
| Medium spike sample 3 | 90,315                        | 88,761                        | 86,577                        |
| Medium spike sample 4 | 90,267                        | 90,235                        | 87,702                        |
| Medium spike sample 5 | 87,640                        | 88,703                        | 88,382                        |
| Medium spike sample 6 | 90,271                        | 90,246                        | 91,100                        |
| Medium spike sample 7 | 87,736                        | 91,431                        | 88,961                        |
| Average               | 88,629                        | 90,105                        | 88,715                        |
| Recovery              | 98%                           | 100%                          | 99%                           |
| Repeatability (RSD)   | 3.5%                          | 1.2%                          | 1.8%                          |
| High spike sample 1   | 177,896                       | 180,299                       | 177,926                       |
| High spike sample 2   | 180,907                       | 184,294                       | 179,632                       |
| High spike sample 3   | 181,684                       | 185,411                       | 182,946                       |
| High spike sample 4   | 177,627                       | 182,840                       | 177,503                       |
| High spike sample 5   | 183,585                       | 186,984                       | 176,702                       |
| High spike sample 6   | 180,224                       | 175,844                       | 170,056                       |
| High spike sample 7   | 179,451                       | 181,837                       | 179,465                       |
| Average               | 180,196                       | 182,501                       | 177,747                       |
| Recovery              | 100%                          | 101%                          | 99%                           |
| Repeatability (RSD)   | 1.2%                          | 2.0%                          | 2.2%                          |