# Verification Report: immuno tabular

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## Description

This is the verification report for the immuno\_tabular folder of the correlates\_reporting project for CoVPN.

In this document, the output of make\_table\_all.R is compared against the output of immuno\_table\_verification.Rmd. The two scripts use the same base mock data. The two datasets generated by each of the two scripts will be compared with each other to confirm they contain the same values.

immuno\_table\_verification.Rmd was independently double programmed based on the specifications found in table\_specifications.pdf. This script outputs its processing to verification/verification\_output/immuno\_tab\_dm\_pos\_v.Rdata, verification/verification\_output/immuno\_tab\_dm\_neg\_v.Rdata, verification/verification\_output/immuno\_tab\_strtm\_v.Rdata, verification/verification output/immuno tab bind1 v.Rdata, verification/verification\_output/immuno\_tab\_bind2\_v.Rdata, verification/verification\_output/immuno\_tab\_pseudo\_v.Rdata, verification/verification\_output/immuno\_tab\_gm\_v.Rdata, verification/verification output/immuno tab gmr v.Rdata, verification/verification output/immuno tab rgmt v.Rdata, verification/verification\_output/immuno\_tab\_rrdiff\_v.Rdata, verification/verification\_output/immuno\_tab\_neg\_v.Rdata, verification/verification\_output/immuno\_tab\_pos\_v.Rdata, verification/verification\_output/immuno\_tab\_vacc\_v.Rdata, verification/verification\_output/immuno\_tab\_plcb\_v.Rdata.

The file verification/verification\_input/practice\_data.csv and verification/verification\_input/Tables\_immuno.Rdata were provided by the original programmer to the tester for verification purposes of make\_table\_all.R when all time points are available. Their md5 hash are 9ee6f42650f63437dda4d392c33185b9, 625fed4804631bf815319e05a9370859.

#### The file

```
verification/verification_output/immuno_tab_dm_pos_v.Rdata, verification/verification_output/immuno_tab_dm_neg_v.Rdata, verification/verification_output/immuno_tab_strtm_v.Rdata, verification/verification_output/immuno_tab_bind1_v.Rdata, verification/verification_output/immuno_tab_bind2_v.Rdata, verification/verification_output/immuno_tab_pseudo_v.Rdata, verification/verification_output/immuno_tab_gm_v.Rdata, verification/verification_output/immuno_tab_gmr_v.Rdata, verification/verification_output/immuno_tab_rgmt_v.Rdata, verification/verification_output/immuno_tab_rdiff_v.Rdata, verification/verification_output/immuno_tab_neg_v.Rdata, verification/verification_output/immuno_tab_neg_v.Rdata, verification/verification_output/immuno_tab_neg_v.Rdata,
```

```
verification/verification_output/immuno_tab_vacc_v.Rdata,
verification/verification_output/immuno_tab_plcb_v.Rdata
were created by the tester for verification using the immuno table verification.Rmd script and using all
time points available. Their md5 hash are 11d22422d7efe57f95211eb6d85d332e,
67e9e2e6a799e54e9bd592747712facd,
2f279d6ed63b839ff4e1ce06dc34ff99,
59cc9f8e51ed12c79e3049688ce59440.
f1b60ba325e99632de9ee8c42c604266,
7f83e40e4a2905378b3e875b8f49d4ca.
d338749272456b586fd2a85b9d4b8847,
5d6ecc3961dd7b854f47a6962ef120cb,
a08945c2d31a7e53e9b7be31f0207a85,
0b6b3d69c633fb9816091ddd16e9aa0a,
ed9f75d7f224be0f8f610a8befa42e58,
8ca38d2423645beea9bdbc8fdfdcdaea,
46483168e9581f92b175638d3103836d.\\
```

#### Load Data

```
original data <- load(
  here("verification", "verification input", "Tables immuno.Rdata")
immuno_tab_dm_pos_v <- load(</pre>
  here("verification","verification_output","immuno_tab_dm_pos_v.Rdata")
immuno tab dm neg v <- load(
  here("verification", "verification_output", "immuno_tab_dm_neg_v.Rdata")
immuno_tab_strtm_v <- load(</pre>
  here("verification", "verification_output", "immuno_tab_strtm_v.Rdata")
immuno tab bind1 v <- load(</pre>
  here("verification", "verification_output", "immuno_tab_bind1_v.Rdata")
immuno_tab_bind2_v<- load(</pre>
  here("verification", "verification_output", "immuno_tab_bind2_v.Rdata")
immuno tab pseudo v <- load(</pre>
  here("verification", "verification output", "immuno tab pseudo v.Rdata")
immuno_tab_gm_v <- load(</pre>
  here("verification", "verification_output", "immuno_tab_gm_v.Rdata")
immuno_tab_gmr_v <- load(</pre>
  here("verification", "verification_output", "immuno_tab_gmr_v.Rdata")
  )
immuno_tab_rgmt_v <- load(</pre>
  here("verification", "verification_output", "immuno_tab_rgmt_v.Rdata")
immuno_tab_rrdiff_v <- load(</pre>
  here("verification","verification_output","immuno_tab_rrdiff_v.Rdata")
```

```
immuno_tab_neg_v<- load(
   here("verification","verification_output","immuno_tab_neg_v.Rdata")
)
immuno_tab_pos_v <- load(
   here("verification","verification_output","immuno_tab_pos_v.Rdata")
)
immuno_tab_vacc_v <- load(
   here("verification","verification_output","immuno_tab_vacc_v.Rdata")
)
immuno_tab_plcb_v <- load(
   here("verification","verification_output","immuno_tab_plcb_v.Rdata")
)</pre>
```

#### Verification

```
testthat::expect_equal(tab_dm_neg_v, tab_dm_neg)

testthat::expect_equal(tab_dm_pos_v, tab_dm_pos)

testthat::expect_equal(tab_strtm_v, tab_strtm)

testthat::expect_equal(tab_bind1_v, tab_bind1)

testthat::expect_equal(tab_bind2_v, tab_bind2)

testthat::expect_equal(tab_pseudo_sub_v, tab_pseudo)

testthat::expect_equal(tab_gm_v, tab_gm)

testthat::expect_equal(tab_gmr_v, tab_gmr)

testthat::expect_equal(tab_rgmt_v, tab_rgmt)

testthat::expect_equal(tab_rrdiff_v, tab_rrdiff)

testthat::expect_equal(tab_neg_v, tab_neg)

testthat::expect_equal(tab_pos_v, tab_pos)

testthat::expect_equal(tab_vacc_v, tab_vacc)

testthat::expect_equal(tab_plcb_v, tab_plcb)
```

## Signatures

Role	Name	Signature	Date
Tester	Yiwen Lu		